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Displaced Workers: Trends in the 1980s and Implications for the Future

DISPLACED WORKERS: TRENDS IN THE 1980s AND IMPLICATIONS FOR THE FUTURE

The Congress of the United States
Congressional Budget Office

NOTES

Numbers in the text and tables of this study may not add to totals because of rounding.

Cover photo: Line of people at an unemployment office. (From the *U.S. News & World Report* Collection, Prints and Photographs Division, Library of Congress.)

Preface

During the 1980s, an average of 2 million workers per year lost full-time jobs and were not recalled by their former employers. At the request of the Subcommittee on Human Resources of the House Committee on Ways and Means, this study examines what lessons might be learned from the experiences of these displaced workers. The study looks at the numbers and characteristics of the workers displaced and investigates workers' experiences after displacement. It also describes the major programs that were available to help these workers and discusses the implications of the study's findings for future federal policy. In accordance with the Congressional Budget Office's (CBO's) mandate to provide objective and impartial analysis, this study makes no recommendations.

Murray N. Ross and Ralph E. Smith of CBO's Human Resources and Community Development Division prepared the study under the direction of Nancy M. Gordon. Many people provided valuable comments, including Paul Cullinan, Diane Herz, Susan Labovich, Ann Lordeman, Constance Rhind, Rachel Schmidt, and Bruce Vavrichek. Christian Spoor edited the manuscript. Jacquelyn Vander Brug provided computer assistance. Sharon Corbin-Jallow typed drafts of the manuscript. Kathryn Quattrone prepared the study for publication.

Robert D. Reischauer
Director

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Summary

The prospect of losing a job and needing to find another one is a concern for many workers. Although the likelihood of actually being displaced--that is, of being permanently terminated from one's job--is fairly low, this concern is understandable because the costs to workers who are displaced can be quite high. In each year of the 1980s, roughly 2 million full-time workers reported losing jobs because their employers either went out of business or laid them off for other reasons and had not recalled them over a year later. Some of these displaced workers soon found new jobs with wages at least as high as in their previous jobs. But others experienced long spells of unemployment, exhaustion of Unemployment Insurance benefits, and lower wages in their new jobs.

Several recent developments have put the problems facing displaced workers on the agenda of many legislators. They include:

- The frequent announcements of large-scale cutbacks by firms that are restructuring or closing down, together with the impression that employers have become less inhibited about discharging their workers (including workers in white-collar jobs);
- The realization that cuts in the defense budget over the next few years will cause large-scale job losses among workers in the defense sector--both federal civilian and military personnel and private-sector workers whose jobs end because their firms lose defense contracts;
- The concern that efforts to reduce trade barriers--such as implementing the North American Free Trade Agreement (NAFTA)--would eliminate jobs in the United States, as employers shifted some of their operations to other countries and as the increase in imports reduced the demand for certain domestically produced goods; and
- The perception that the safety net for workers who lose their jobs is not adequate to meet the needs of displaced workers.

Against that backdrop, this study examines what lessons might be learned from the experiences of roughly 20 million workers who were displaced during the 1980s. The analysis is largely based on data collected by the Census Bureau for the Bureau of Labor Statistics (BLS) in surveys conducted in January 1984, 1986, 1988, 1990, and 1992. Displaced workers were identified as people who reported having "lost or left a job because of a plant closing, an employer going out of business, a layoff from which [they were] not recalled or other similar reason" during the five years preceding each survey.

The Congressional Budget Office's (CBO's) analysis of these data differs from other studies in two important ways that should make it more useful to policymakers. First,

CBO developed a new technique that permits the data from all five surveys to be combined and used to examine year-to-year changes in displacement, whereas the BLS and others have generally focused on the five-year averages from each survey. Year-to-year changes in the number of displaced workers exhibit important cyclical variation that the five-year averages mask.

Second, CBO counted workers as displaced regardless of how long they had been with their previous employer, whereas other studies have focused on the roughly half of displaced workers who were with their employer for at least three years. This study uses the broader definition in part because the events that create interest in displacement--such as large plant closings--are couched in terms of the number of workers who will lose their jobs, not just the number who had been with the employer for at least three years. Moreover, whether to provide assistance to displaced workers who had worked for their employer for less than three years would be a policy decision, one that can be informed by knowledge of the characteristics and experiences of these workers.

Displacement in the 1980s and Its Consequences

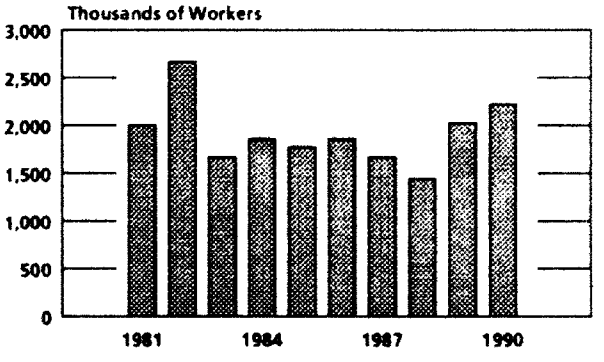
Workers will undoubtedly continue to be displaced in the future--both because of normal adjustments made by employers in a dynamic market economy and because of changes in federal policies, such as cuts in defense spending. As the Congress considers how to assist these workers, the experiences of people displaced during the past decade provide several useful insights.

Number and Characteristics of Displaced Workers

From 1981 through 1990, the annual number of displaced workers generally mirrored the overall state of the economy. The numbers ranged from a high of 2.7 million workers displaced in the weak labor market of 1982 to a low of 1.5 million in the relatively strong labor market of 1988 (see Summary Figure 1). Workers in the service sector and in white-collar occupations accounted for a rising portion of displaced workers during the decade, reflecting both the increasing share of these industries and occupations in the nation's total employment and the increased risk of these workers' being displaced. On the whole, however, workers in service industries and in white-collar jobs remained much less likely to be displaced than workers in goods-producing industries and blue-collar jobs.

The characteristics of displaced workers were remarkably stable during the 1980s, despite a wide swing in the business cycle,

Summary Figure 1.
Number of Displaced Workers, by Year of Job Loss, 1981-1990

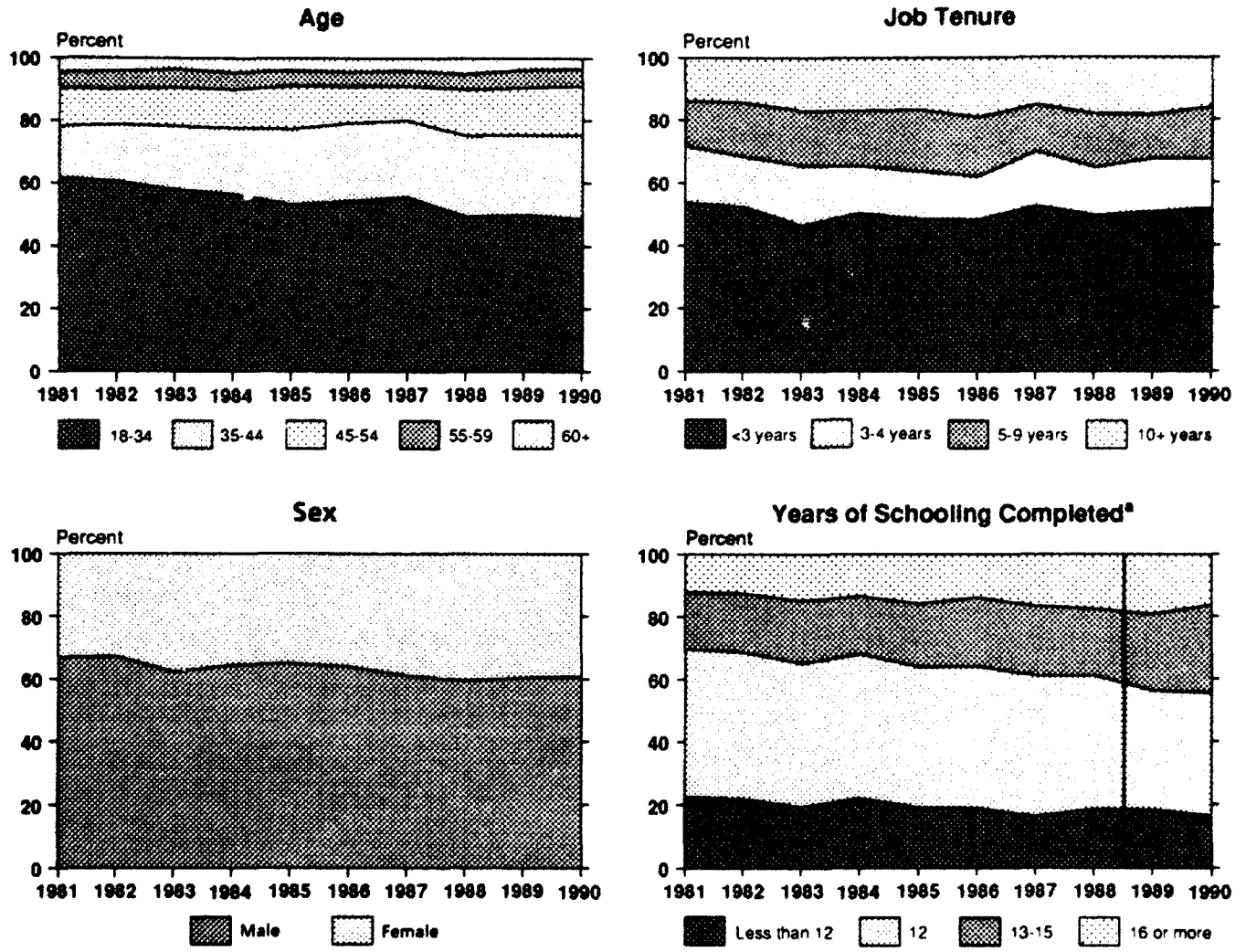


SOURCE: Congressional Budget Office tabulations of data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

changes in industrial composition, and changes in a broad array of government policies. For example, throughout the decade, slightly more than 20 percent of all displaced workers were aged 45 and older, about 50 percent had been with their previous employer for more than three years, and 60 percent were male (see Summary Figure 2). The percentage of displaced workers with schooling beyond high school grew from about 30 percent to 40 percent, though, mirroring the increased educational attainment of the work force as a whole.

The number of workers who will be displaced during the next few years may be somewhat larger than the number displaced in the late 1980s, because the economy is likely to be weaker and because defense-related employment is expected to shrink further. CBO forecasts a gradual economic recovery, with the unemployment rate falling from 7.4 percent in

Summary Figure 2.
Characteristics of Displaced Workers, by Year of Job Loss, 1981-1990



SOURCE: Congressional Budget Office tabulations of data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

a. For workers displaced in 1989 and 1990, years of schooling completed is estimated on the basis of the highest degree obtained and is not strictly comparable with data for prior years.

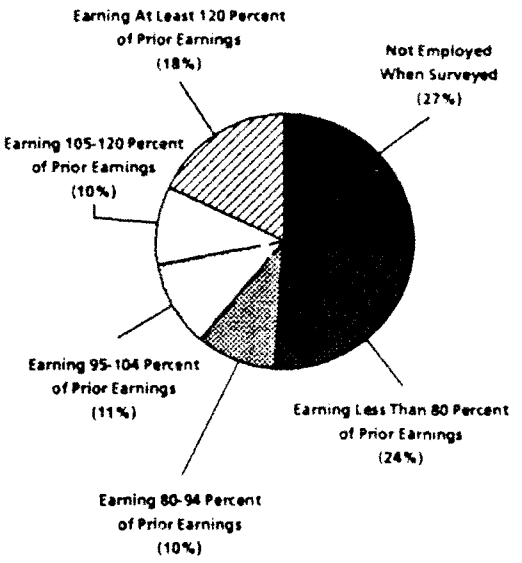
1992 to 6.0 percent in 1996. The latter unemployment rate would still be one-half of one percentage point above the unemployment rate in 1990, the final year of the 10-year period examined in this study. Moreover, the downsizing of the defense sector that began in the late 1980s is expected to continue, with that sector projected to lose more than 1 million jobs during the next five years. (Estimates of the job losses in industries that would be adversely affected by NAFTA are much smaller and spread out over a longer period.)

The stability of the characteristics of workers displaced during the past decade is no guarantee, of course, that the displaced workers of the future will look like those of the past. Workers displaced from a shrinking defense industry, for example, may well look different from those who lost jobs from a shrinking (in terms of employment) steel industry. At the same time, it is reasonable to expect that many of the factors that resulted in the patterns observed for displaced workers in the 1980s will continue. For example, seniority practices are likely to ensure that older workers continue to be a relatively small share of all displaced workers. Similarly, workers with more years of schooling will probably continue to have more stable employment patterns than those with fewer years of schooling.

The Experiences of Workers After Displacement

Although some of the workers who were displaced during the 1980s found new jobs with little trouble, others experienced substantial difficulties. This finding is based on three measures used in this study to examine the consequences of displacement, each based on survey questions asked of displaced workers one to three years after they lost their jobs: whether or not they were employed at the time of the survey; how long they had been jobless; and the earnings of the reemployed workers in their new jobs relative to their previous earnings.

Summary Figure 3.
Earnings of Workers Displaced in the 1980s One to Three Years After Losing Their Jobs



SOURCE: Congressional Budget Office tabulations of data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

One to three years after being displaced, half of the workers who lost jobs over the past decade either were not working or had new jobs with weekly earnings that were less than 80 percent of their old earnings (see Summary Figure 3). In contrast, more than a quarter of the displaced workers were reemployed and earning at least 5 percent more than their previous weekly earnings; nearly one in five had an increase in earnings of at least 20 percent.

The vast majority of displaced workers who had found new jobs experienced some period of joblessness after displacement, and many were without work for a substantial period of time. The average duration of joblessness for people reemployed at the time of the survey was just under 20 weeks. The reemployed workers who incurred the biggest wage reductions, on average, took the longest to find new jobs. For instance, those whose earnings had declined by more than 20 percent had been jobless for an average of 26 weeks, whereas

those whose earnings had increased by at least 20 percent were jobless an average of 14 weeks.

The state of the economy had an important influence on the extent of joblessness after displacement. It did not, however, have an apparent effect on the proportion of reemployed workers who incurred large losses in their earnings. The average duration of joblessness fell from almost 30 weeks in 1981 (during a recession) to 15 weeks in 1988. But the percentage of reemployed workers whose earnings had fallen by at least 20 percent was not substantially higher in 1981 than in 1988.

The displaced workers who incurred the largest losses were disproportionately those who were the least well educated, the oldest, and had the longest tenure with their previous employer. In fact, these groups were far less likely than the displaced workers who were better educated, younger, and had shorter tenure to be working at all at the time of the survey. For example, less than 60 percent of the displaced workers who had not completed high school had found new jobs, compared with more than 70 percent of the displaced workers who had completed exactly 12 years of schooling and almost 90 percent of those with 16 or more years of education.

Likewise, the less-educated, older, and longer-tenured workers who did find new jobs generally took longer to find them and were more likely to incur substantial wage reductions than were other displaced workers. For example, those reemployed workers who had not completed high school were jobless for an average of 39 weeks, and two in five of them incurred an earnings loss of more than 20 percent. In contrast, reemployed workers with at least 16 years of education were jobless an average of 22 weeks, and only one in four of them incurred that large a wage loss.

Despite variation over the business cycle in workers' outcomes after displacement, these relationships between workers' characteristics and their likelihood of difficulties were quite stable. That is, the kinds of workers who were jobless longer in bad years were also jobless longer in good years, and similar workers incurred losses in earnings in both good and bad years. Such stability reinforces confidence in the applicability of this study for learning about the outcomes likely to face workers who are displaced in the future.

Providing Assistance to Displaced Workers

The federal government, together with state governments, offers a wide range of programs for displaced workers who need temporary income assistance until they find another job and help in preparing for, and finding, that new job. Unemployment Insurance (UI) is the main program providing income assistance to displaced workers (as well as to other workers who lose their jobs). The Economic Dislocation and Worker Adjustment Assistance (EDWAA) program and the Trade Adjustment Assistance (TAA) program provide reemployment assistance. These three programs are likely to be the starting point for the 103rd Congress as it considers what new measures, if any, should be taken to help displaced workers.

Unemployment Insurance

The UI program provides weekly benefits to experienced workers who lose their jobs, whether or not the job loss is permanent. Work histories determine the specific duration and weekly amount of benefits for workers, but benefits are generally available for no more than 26 weeks. When unemployment in a state is sufficiently high, the federal/state Extended Benefit (EB) program provides additional weeks of benefits. The Emergency Unemployment Compensation program, enacted in 1991 and amended in 1992, enables unemployed workers who have exhausted regular UI benefits to receive further payments. When the emergency program expires in

March, states will have the option of using a new method of triggering EB. Nonetheless, far fewer unemployed workers are likely to receive EB payments than did so under the emergency program.

Displaced workers who received UI benefits (about 60 percent of the displaced workers in the decade analyzed) were much more likely than other UI recipients to exhaust their benefits without having found another job. During the 1980s, about half of the displaced workers who received UI benefits exhausted them. In contrast, about one-third of all UI recipients ran out of benefits during that decade.

The Congress might want to consider expanding the potential duration of UI benefits for all displaced workers or for specific groups of them--those with relatively long job tenure, for example, or those who enroll in a retraining program or a program that helps participants find new jobs faster. Extending the maximum duration of UI benefits would help cushion the losses that many displaced workers would otherwise incur. To some degree, however, extending benefits would encourage recipients to remain unemployed longer. Linking the additional benefits to participation in some kind of reemployment assistance program (as is done in the TAA program, discussed below) could speed their adjustment, but it would be a major undertaking and would add significantly to the administrative costs of the UI program.

EDWAA and TAA

Under Title III of the Job Training Partnership Act, as amended by the Economic Dislocation and Worker Adjustment Assistance Act of 1988, states receive federal funds to help displaced workers obtain employment through training and related employment services. Although the criteria for qualifying for services are quite broad, available funding is not sufficient to serve all workers eligible for EDWAA. Closely related programs exist for workers displaced because of defense cutbacks and implementation of the Clean Air Act. The funds for all of these programs are mainly used to provide classroom training, on-the-job training, and job search assistance to the participants. In recent years, between 200,000 and 250,000 displaced workers have participated in these programs.

TAA provides income replacement benefits, training, and related services to workers unemployed because of import competition. To get assistance, workers from a firm must first petition the Secretary of Labor for certification and then meet other requirements for eligibility. For a group of workers to qualify, the Secretary must conclude that a significant share of the firm (or a subdivision) is threatened with displacement; sales or production have decreased; and increased imports have "contributed importantly" to the reductions in employment and in sales or production. Certified workers are eligible for training and other reemployment assistance. Cash benefits are also available to certified workers, but only after their UI benefits run out. Benefits can last up to one year if recipients are taking part in an approved training program. In recent years, only about 25,000 displaced workers received cash assistance and fewer received training or other reemployment assistance.

EDWAA and TAA represent two quite different approaches to serving the needs of displaced workers. EDWAA emphasizes reemployment assistance, mainly through short-term training and job search assistance, with few participants receiving income support. In contrast, TAA essentially extends the potential duration of UI benefits for eligible workers willing to participate in a training program, with about two-thirds of the program's outlays going for income support. The debate over whether to use EDWAA or TAA as a model for developing a new displaced-worker program largely centers on the merits of providing income support longer than is normally available through the UI system.

In principle, the retraining assistance provided through either program could help displaced workers develop new skills or adapt their old ones, making them more valuable to

new employers and thus helping them find new jobs at wages comparable with their old ones. Despite widespread support for retraining displaced workers, however, very little is known about the effectiveness of the current programs in increasing the earnings of their participants. The EDWAA program has not been evaluated, and preliminary findings from an evaluation of TAA now under way suggest that the training received by its participants has not increased their average earnings or their likelihood of being employed. Evaluations of earlier demonstration programs for displaced workers in specific sites provide considerable basis for optimism about the effectiveness of job search assistance, but not of short-term training. Whether a better-designed, and possibly more extensive, training program would be more effective is a matter of conjecture.

Chapter One

Introduction

Displacement of workers is a normal feature of a dynamic market economy. Changes in consumer tastes, technology, and competitive positions affect both the number and types of employers as well as the number and types of workers they need. Just as employers adjust to increases in the demand for their products by hiring new workers, they adjust to changes that decrease their need for some or all of their workers by terminating workers' employment. Although attrition may be used to achieve small cutbacks in employment, large reductions often necessitate dismissals. Economists generally view these features of a market economy as beneficial in directing resources--including human resources--to where they are most highly valued. But the benefits are achieved partly at the expense of the workers who are displaced.

Cutbacks announced in 1992 by General Motors, IBM, and Sears, among other firms, are dramatic examples of the corporate restructuring and downsizing that are likely to displace workers in a wide range of industries in the future. Less dramatic are the displacements caused by closures or cutbacks in thousands of smaller companies throughout the nation. Such events--together with the continual but less well publicized openings of new businesses and expansions of existing ones--are typical of the adjustments that employers have always made in response to changes in market conditions.

Displacement may also result from changes in public policy. Cutbacks in defense spending, in particular, are likely to lower the level of employment in that sector substantially over the next few years. Total employment in the defense industry--including civilian and military jobs in the Defense Department and defense-related jobs in the private sector--has already fallen by about 1 million jobs, from 6.6 million in 1987 to 5.5 million in 1992. Defense employment is expected to decline by at least another 1 million jobs by 1997. The reductions in 1993 and 1994 may be especially large, with cuts currently estimated at about 400,000 in each year.[1]

Changes in trade policy are also likely to cause some workers to be displaced, though these reductions are not expected to be as large as those in the defense sector. Much attention has focused on the North American Free Trade Agreement (NAFTA), which the Congress is expected to consider in early 1993. Most analyses of the potential effects of implementing NAFTA estimate that its net impact on the level of U.S. employment--that is, the number of jobs gained minus the number of jobs lost--would be positive. But analysts generally agree that, whatever the net impact, jobs in some firms and industries would

1. Congressional Budget Office, *The Economic Effects of Reduced Defense Spending* (February 1992), p. 17, revised to incorporate CBO's current estimate of the reduction in defense-related jobs through 1997.

be lost.[2] Predictions of these losses range from about 100,000 jobs to more than 500,000 over the next decade.

Although some of the reductions in employment--whether caused by changes in public policy or by changes in the economy--could be achieved by cutting the number of workers hired, permanent separations might be required. And although the well-being of the nation as a whole may be enhanced by many of the changes that lead to displacement, the workers who lose their jobs are often worse off. For instance, a significant number of displaced workers have trouble finding new jobs and earn less when they become reemployed than they did before.

Why might displaced workers not be able to find jobs as good as the ones they lost? One reason is that the wages they earned in their previous jobs may have rewarded them for knowledge that is not as useful elsewhere. For example, a detailed knowledge of the merchandise sold by Sears, or of that company's personnel and inventory control policies, could be of limited value to other employers. This "firm-specific human capital," as economists call it, enables workers to be more productive and thus worth more to their employer than to other employers. The elimination of their job--for whatever reason--essentially destroys the value of such capital.

Specific knowledge is not necessarily limited to a firm, but may also be related to a worker's industry and occupation. Coal miners, for example, may find that the skills useful in underground mining are not readily transferable to other industries. Truck drivers who haul coal, in contrast, may be able to apply their skills to other industries without much difficulty. The cost of moving to another community may further restrict a displaced worker's ability to transfer the skills acquired in one job to another.

The theory of specific human capital implies that losses in earnings incurred by displaced workers who have worked for a long time for the same firm (or for a long time in the same industry or occupation) will probably be greater than the losses incurred by workers with shorter job tenure. Long-tenured workers are likely to have amassed a greater stock of specific human capital and therefore have more to lose by moving to their next-best job.[3]

Another reason displaced workers might experience earnings losses is that displacement may result in the severing of implicit lifetime contracts--arrangements in which workers make up for relatively low wages early in their careers with higher wages later. Paying workers less than their productivity warrants early in their careers, and paying them more than their productivity warrants later in their careers, may provide workers with greater incentive to be productive and to remain with their employer in order to reap the gains of long tenure.[4] Workers whose employers pay higher wages than competing firms--for example, because of union contracts--are also likely to earn less in subsequent employment. In these cases, too, the magnitude of the loss is likely to be positively related to the length of time the worker spent with the employer.

In practice, determining which of these explanations applies to particular displaced workers is not very feasible. One can observe

2. For example, the Secretary of Labor, testifying before the House Committee on Ways and Means on September 15, 1992, cited the projection by the Institute for International Economics that 150,000 jobs would be lost over a 10-year period, which would be more than offset by an increase of 325,000 jobs, leading to a net rise of 175,000 jobs. The Secretary characterized the 150,000 estimate as "what we believe to be the absolute top end of the range of credible estimates of worker dislocation."

3. Studies confirming the positive association between wages and job tenure include James N. Brown, "Why Do Wages Increase with Tenure? On-the-Job Training and Life-Cycle Wage Growth Observed Within Firms," *American Economic Review*, vol. 79, no. 5 (December 1989), pp. 971-991; and Robert Topel, "Specific Capital, Mobility, and Wages: Wages Rise with Job Seniority," *Journal of Political Economy*, vol. 99, no. 1 (February 1991), pp. 145-176.

4. Empirical support for this theory is provided by Robert M. Hutchens, "A Test of Lazear's Theory of Delayed Payment Contracts," *Journal of Labor Economics*, vol. 5, no. 4, part 2 (October 1987), pp. S153-S170. As the author notes, however, his findings are also consistent with theories based on specific human capital.

what happens to workers following their termination and relate that experience to their characteristics and the circumstances of their displacement. Interpreting such observations and their implications for public policy is more speculative.

Chapter Two

Trends in Displacement, 1981-1990

Each year between 1981 and 1990, an average of almost 2 million workers lost full-time jobs and were not recalled by their former employers. About half of these displaced workers lost jobs when their employers closed or relocated facilities. The other half were laid off and not recalled, even though their employers continued to operate. This chapter uses data from supplements to the Current Population Survey (CPS)--a monthly survey of approximately 60,000 households administered by the Census Bureau for the Bureau of Labor Statistics--to provide information about trends in the number and characteristics of these displaced workers.

Three key findings emerge. First, although permanent layoffs are cyclically sensitive, they are fairly common even in a healthy labor market. Second, the industrial and occupational composition of displacement has changed over the past decade: displacement is increasingly a phenomenon that affects workers in services-producing industries and workers in white-collar occupations. Third, the characteristics of displaced workers themselves have changed relatively little despite the sectoral changes in displacement.

Measuring Displacement

When does the loss of a job constitute displacement? Although no single definition exists, discussions of displacement often incorporate several conceptual aspects of job loss. First, displacement generally connotes permanent job loss; displaced workers are people who will not be recalled by their former employers. Second, it generally connotes the loss of a job held for an appreciable length of time, although "appreciable" means different things to different observers. Finally, some analysts also consider the consequences of losing a job to be part of the definition; that is, a displaced worker is not only a person who permanently lost a job but one who experienced adverse consequences--such as lengthy joblessness or lower earnings--as a result.

As a practical matter, many analysts use the definition of displacement incorporated by the Bureau of Labor Statistics (BLS) in its analyses of data from five special supplements to the CPS administered in January 1984, 1986, 1988, 1990, and 1992. The BLS analyses, whose results have often been cited by policymakers, identify displaced workers as people who report having "lost or left a job because of a plant closing, an employer going out of business, a layoff from which [they were] not recalled or other similar reason" during the five years preceding the survey.[1] In its analyses, the BLS has focused on workers who had been with their previous employer for at least three years before being laid off.

1. Detailed results from the January 1990 survey, which analyzes displacements between 1985 and 1989, are described in Diane E. Herz, "Worker Displacement Still Common in the Late 1980's," *Monthly Labor Review* (May 1991), pp. 3-9.

The use of the CPS supplement data in this study differs in three important ways from their use by the BLS and most other researchers. First, data from all five supplements are combined in a way that permits analysis of year-to-year changes in displacement over the past decade; other analyses have generally focused on the five-year cumulative number of displacements shown by each survey. Second, whether workers are counted as displaced does not depend on how long they had been with their previous employer. Finally, the estimates reported in this study are based on workers who lost full-time jobs--about 90 percent of those who reported permanent job losses in the CPS; the BLS analyses include workers who lost part-time jobs.

Data from the CPS supplements are combined by selecting information only for workers who were laid off in the second and third years preceding each survey. (For example, the January 1992 survey was used to obtain information about workers who lost jobs in 1989 and 1990.) This procedure, which is intended to avoid including workers who were eventually recalled to their jobs and to reduce problems associated with response bias, also permits analysis of year-to-year changes in displacement that have previously received little attention. Annual changes in the number of displaced workers exhibit important cyclical variation that is obscured when only the cumulative five-year totals are examined. Appendix A discusses this procedure and its implications in more detail.

The second way in which this analysis differs from those of the BLS is that it includes all workers who reported being displaced, regardless of the number of years they had been with their employer. Although many researchers have followed the BLS convention of analyzing data only for displaced workers who were with their employer for at least three years, this study uses the broader definition because one of the important issues it addresses is the relationship between job tenure and the losses incurred by displaced workers. Moreover, the events that create interest in displacement--such as the closing of a large plant--are often couched in terms of the number of workers who will lose their jobs, not just the number who had been with the employer for at least three years. In addition, the notion of targeting resources toward displaced workers who had worked for their employer for a particular length of time is itself a policy decision.

The exclusion of workers who lost part-time jobs reflects a subjective decision, similar to the BLS's decision to exclude workers who lost seasonal jobs, and does not materially affect the results.[2] On average, part-time workers had been with their employers for fewer years, were much more likely to have worked in retail or wholesale trade, and were much less likely to have received Unemployment Insurance benefits. The percentage of all displaced workers who had worked on a part-time basis varied between 9 percent and 12 percent during the 10-year period examined.

Trends in the 1980s

The data analyzed in this study cover 1981 through 1990, a 10-year span that began and ended with the nation's economy in recession. From the low point of the 1981-1982 recession, when the civilian unemployment rate reached 10.7 percent in late 1982, the economy grew steadily for nearly eight years before slipping into recession again in 1990. During this time, civilian employment grew 18 percent, from 100 million workers in 1981 to 118 million workers in 1990.

Despite the increase in total employment, the number of workers in goods-producing industries--agriculture, mining, construction, and manufacturing--was slightly lower in 1990 than it had been in 1981. Employment in manufacturing industries fell substantially

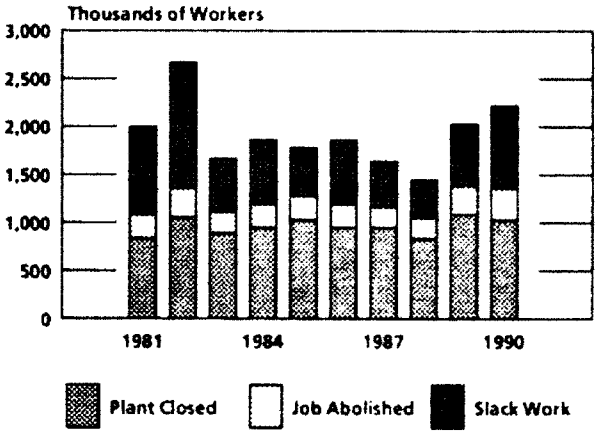
2. Following the BLS convention, this study also excludes workers who lost seasonal jobs and those whose self-owned businesses failed.

during the 1981-1982 recession and was still about 5 percent below its 1981 level in 1990. Conversely, the number of workers in services-producing industries increased every year throughout the decade. (Services-producing industries include transportation, public utilities, communications, wholesale and retail trade, financial services, insurance, real estate, other services, and government.) Within these broad categories, however, the experience of particular industries varied widely. Employment in primary metals firms such as steel makers, for example, fell by about one-third over the decade, but firms in the rubber and plastics industry increased their employment by about 15 percent.

The total number of displaced workers has generally mirrored the overall state of the economy, reflecting the close connection between the demand for the goods and services that firms produce and the number of employees they require. In 1982, 2.7 million workers--about one of every 25 full-time wage and salary workers--lost jobs and were not recalled. The economy was much stronger in 1988 as the unemployment rate fell to 5.5 percent, but even then 1.5 million workers--about one in 50--permanently lost their jobs.

The pronounced cyclical variation in displacement over the 1980s is primarily caused by changes in the number of workers who lost jobs because of "slack work," rather than changes in the number whose employers closed or relocated facilities or whose shifts or positions were abolished (see Figure 1).[3] For example, when displacement fell by 1.2 million workers between 1982 and 1988, three-quarters of the decrease resulted from a lower number of workers who reported being displaced because of slack work. Similarly, the increased number of workers displaced because of slack work accounted for 60 percent of the total increase in displacement between 1988 and 1990.

Figure 1.
Number of Displaced Workers, by Reason for Displacement and Year of Job Loss, 1981-1990



SOURCE: Congressional Budget Office tabulations of data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

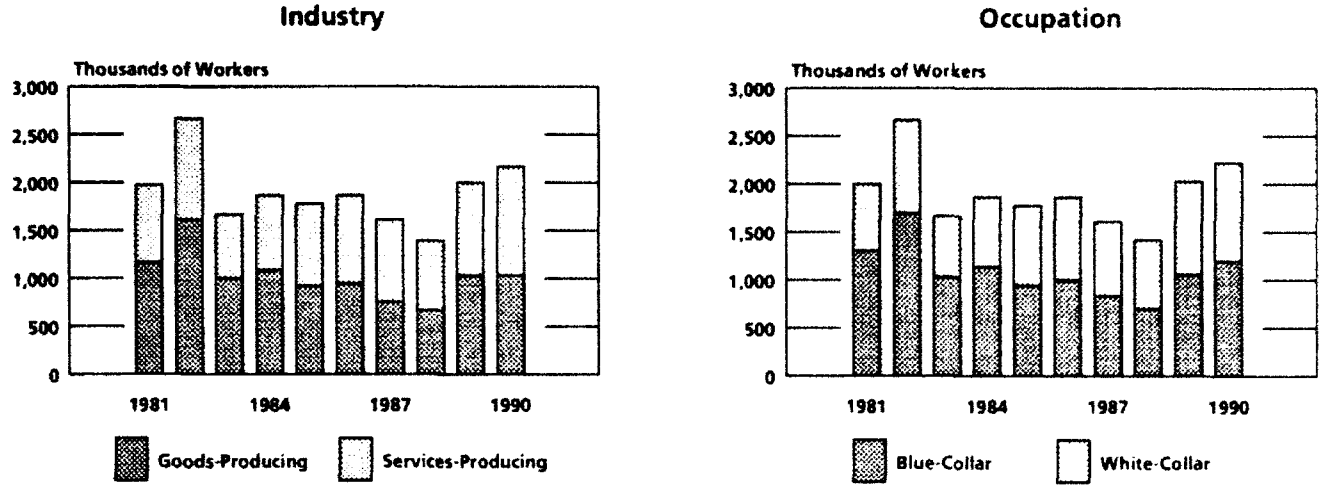
NOTES: "Plant closed" includes workers who lost jobs because their employers closed or relocated facilities. "Job abolished" includes workers whose employers continued to operate, but whose position or shift was abolished. "Slack work" includes workers displaced for other reasons, excluding the completion of seasonal work or the failure of a self-owned business.

Which Jobs Were Lost and Who Lost Them?

Displacement is often characterized in popular discussion as a phenomenon affecting older, less-educated men who lose long-term jobs when manufacturing firms shut down plants. This depiction, however, is more accurate in describing the types of workers who face the highest costs of displacement--that is, who are most likely to experience significant difficulties in finding reemployment--than it is in describing the characteristics of displaced workers. For example, older workers with substantial seniority who lose their jobs fare much worse than younger workers in terms of

3. The term "slack work" is not well defined in the CPS supplements. In reporting results from the first survey, however, BLS analysts said that it may be interpreted as "insufficient demand for the products or services" of the displaced worker's former employer. See Department of Labor, Bureau of Labor Statistics, *Displaced Workers, 1979-83*, Bulletin 2240 (July 1985).

Figure 2.
Number of Displaced Workers, by Industry, Occupation, and Year of Job Loss, 1981-1990



SOURCE: Congressional Budget Office tabulations of data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

NOTES: Goods-producing industries comprise agriculture, mining, construction, and manufacturing. Services-producing industries comprise transportation, public utilities, and communications; wholesale and retail trade; finance, insurance, and real estate, other services; and government. White-collar workers are those in managerial and professional specialty occupations and technical, sales, and administrative support occupations. Blue-collar workers are those in service occupations; precision production, craft, and repair occupations; farming, forestry, and fishing occupations; as well as operators, fabricators, and laborers.

joblessness and subsequent earnings. However, because older, senior workers are much less likely to lose their jobs in the first place, they constitute a relatively small share of total displacement.

The risk of displacement varied significantly among industries and occupations in the past decade, with workers in goods-producing industries typically facing the greatest likelihood of permanent job loss. In 1990, for example, roughly one in 25 workers in these industries was displaced, about three times the rate experienced by workers in services-producing industries. The risk of displacement in goods-producing industries was lower in 1988, when the economy was stronger, but was almost triple that in services-producing industries.

The relatively greater risk of job loss facing these workers is reflected in the disproportionate share of total displacement that goods-producing industries make up. On average, about 1 million workers per year lost jobs in goods-producing industries between 1981 and 1990 (see Figure 2). The share of these industries in total displacement fell during the decade, however, from about 60 percent in the early 1980s to just under 50 percent in 1990. This decline, which occurred despite the cyclical downturn that began in 1990, still left goods-producing industries with a share of total displacement that was twice their share of total employment.

In a similar vein, blue-collar workers have been more likely than white-collar workers to be displaced, but rates vary substantially both over time and within these broad occupational categories.[4] The difference in the risk of

4. White-collar workers are those in managerial, professional specialty, technical, sales, or administrative support positions. Blue-collar workers are defined as operators, fabricators, or laborers, as well as people in service, precision production, craft, or repair occupations and farming, forestry, and fishing occupations.

displacement between the two groups may be narrowing, however.

Blue-collar workers accounted for a majority of displaced workers throughout the past decade, with an average of 1.1 million losing jobs each year. The share of blue-collar workers in total displacement generally declined over the decade, however, falling from about 65 percent in 1982 to 55 percent in 1990. Most of the relative decrease in displacement among blue-collar workers is attributable to proportionately fewer job losses among machine operators. These workers were less likely to become displaced at the end of the decade, and they also accounted for a smaller share of total employment.

The risk of displacement also varies with certain job-related characteristics of workers themselves. For example, workers who have not finished high school are about twice as likely to be displaced as those with a college degree. Similarly, older workers, who tend to have greater seniority, are less likely to be displaced than younger workers. These different risks of displacement translate into differences in characteristics between displaced workers and the work force as a whole. However, relatively large differences in the risk of displacement do not necessarily yield large differences in characteristics. And from the perspective of formulating policy for assisting workers once they are displaced, it is the characteristics of those who lost their jobs that is most relevant, not their risk of displacement.

With the important exceptions of job tenure and type of industry in which they work, the characteristics of displaced workers are broadly similar to those of the work force as a whole. In 1988, for example, 49 percent of displaced workers were between the ages of 18 and 34, compared with 45 percent of all civilian workers (see Table 1). And only a slightly higher proportion of displaced workers (62 percent) did not continue their education beyond high school than was the case for civilian workers overall (55 percent).

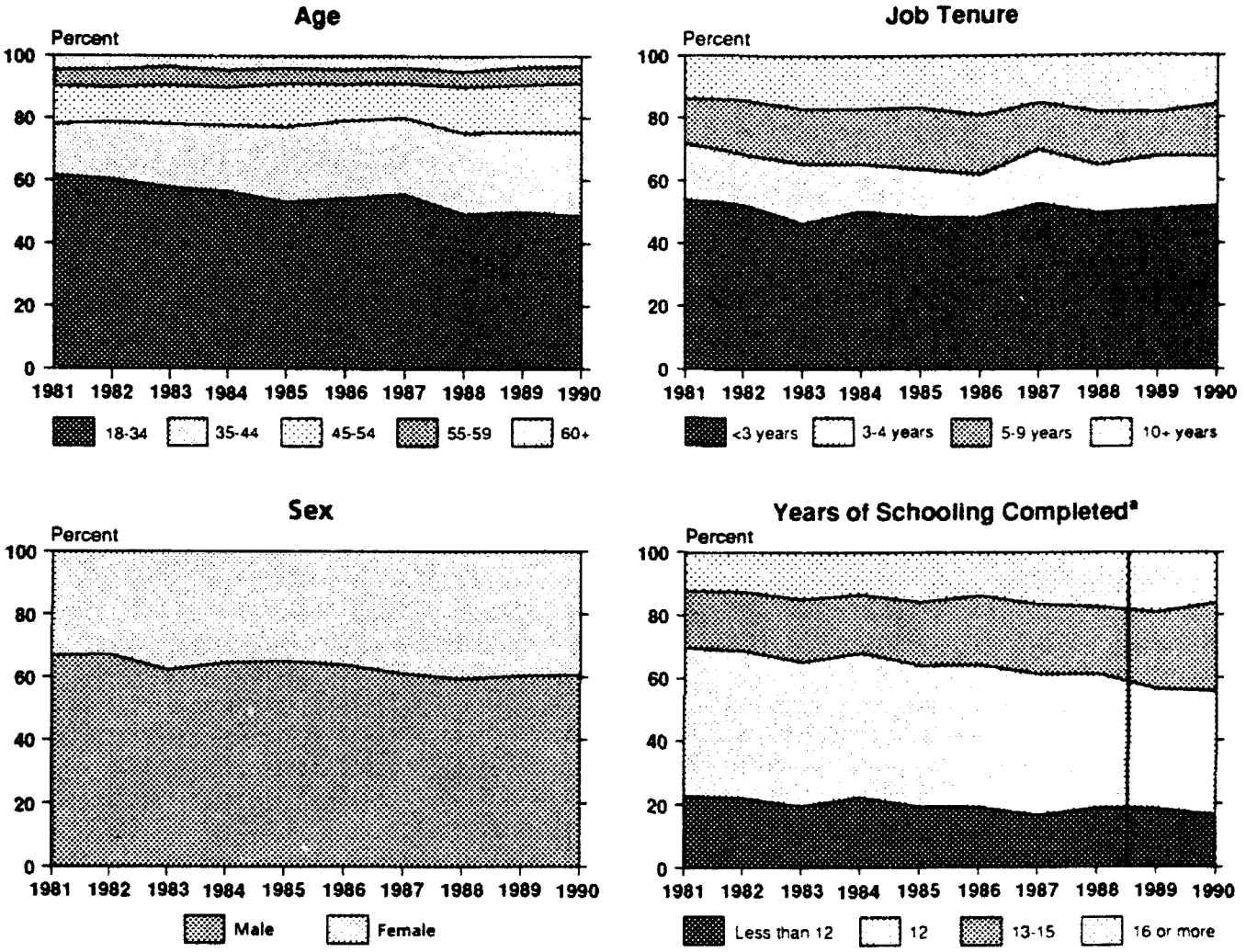
Table 1.
Characteristics of Displaced Workers Versus All Civilian Workers, 1988 (In percent)

Characteristic	Displaced Workers	All Civilian Workers
Age		
18-34	49	45
35-44	26	25
45-54	15	16
55-59	5	6
60 and older	5	7
Job Tenure		
Less than 3 years	50	35
3-4 years	15	15
5-9 years	17	19
10 or more years	18	30
Schooling Completed		
Less than 12 years	19	15
12 years	43	40
13-15 years	21	20
16 or more years	17	26
Sex		
Male	59	55
Female	41	45
Occupation		
White-collar	51	56
Blue-collar	49	44
Industry		
Goods-producing	48	24
Services-producing	52	76

SOURCES: Data for displaced workers are based on Congressional Budget Office tabulations of data from the January 1990 Current Population Survey. Data on age, sex, occupation, and industry for all civilian workers are from Bureau of Labor Statistics, *Employment and Earnings* (January 1990). Data on job tenure for all civilian workers are based on Congressional Budget Office tabulations of data from the May 1988 Current Population Survey. Data on schooling completed are from Bureau of Labor Statistics, *Handbook of Labor Statistics* (August 1989). Schooling data are for the civilian labor force aged 25 through 64.

Despite the changes in the overall economy, and in the industrial and occupational composition of displacement, the characteristics of the people who lost jobs permanently remained fairly stable over the past decade. The share of total displacement accounted for by workers aged 18 to 34 was slightly smaller at the end of the decade than at the beginning,

Figure 3.
Characteristics of Displaced Workers, by Year of Job Loss, 1981-1990



SOURCE: Congressional Budget Office tabulations of data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

a. For workers displaced in 1989 and 1990, years of schooling completed is estimated on the basis of the highest degree obtained and is not strictly comparable with data for prior years.

but the fraction aged 45 and older remained almost constant at just over 20 percent of the total (see Figure 3). Similarly, workers who had been with their previous employer for less than three years accounted for about half of total displacement throughout the decade; the share of those who had been with their employer 10 or more years held steady at around 15 percent. The trend in job displacement by educational attainment was also quite stable, although the share accounted for by workers with schooling beyond high school grew through the decade from about 30 percent to about 40 percent.[5]

5. Schooling data for 1989 and 1990 are not strictly comparable with data for prior years. Beginning in January 1992, the questions relating to schooling on the Current Population Survey were changed to ask about specific educational attainment rather than years of schooling completed. For this study, workers displaced in 1989 and 1990 were assigned to one of four categories of years of schooling that would be consistent with their educational attainment. For example, workers who reported holding a high school diploma (but no higher degree) were assigned to the category that previously included workers who reported completing exactly 12 years of schooling.

Chapter Three

Workers' Experiences After Displacement

"The biggest problem we've had is helping people get over their fear, frustration, anger, and anxiety and take advantage of the services. . . . It's like dealing with the death of a loved one. Working at the plant has been their whole life and it can be tough for them to make the transition."[1]

Losing a job, especially one held for many years, can be traumatic. People who have worked for one employer for a long time may be uncertain about how to go about finding new work. Moreover, even for people equipped to hunt for jobs effectively, labor market conditions may require uprooting families to find new employment; this is especially true when the reason for displacement is the failure of a major local employer. In addition, the skills acquired while working with one firm may not be needed by other employers, which implies that many displaced workers may be unable to regain their previous level of earnings when they do find work.

Three types of data recorded by the Current Population Survey are useful in identifying the characteristics that are associated with significant difficulty in finding new employment. Those three are whether or not workers who lost jobs were reemployed at the time of the CPS survey, how long reemployed workers had been jobless, and the likelihood that reemployed workers had earnings in their new jobs that were well below their previous earnings.

Overview

Most displaced workers eventually return to work. Almost three-quarters of those displaced over the past decade were reemployed when surveyed--between 13 and 36 months after losing their jobs (see Table 2). About 14 percent were unemployed at the time of the survey--although some of these workers may have been reemployed temporarily after losing their jobs--and about 12 percent were not in the labor force. Some of the displaced workers who were unemployed or not in the labor force may also have returned to work after the survey was conducted.

The vast majority of workers displaced over the past decade experienced a period of joblessness following displacement. Although almost one-third of displaced workers were jobless less than five weeks, many were without work for a substantial period of time. At the time of the survey, the average duration of joblessness for all workers displaced in the 1980s was almost 30 weeks; those who were reemployed at the time of the survey had an average duration of just under 20 weeks.[2]

1. Joy Margrave, a training program coordinator, discussing the difficulties in helping workers who lost their jobs when a plant that manufactured children's clothing in LaFollette, Tennessee, closed. Quoted in *Employment and Training Reporter*, November 28, 1990, p. 266.

2. The duration of joblessness is defined here as the total number of weeks that displaced workers reported being without work following the loss of their jobs. Because changes were made in the survey, CBO adjusted the data to make estimates of weeks without work more consistent. The procedure is described in Appendix A.

Table 2.
Displaced Workers' Employment Status at Time of Survey, Earnings Ratio, and Average Duration of Joblessness

Status at Survey Date	Distribution (Percent)	Average Duration of Joblessness (Weeks)
All Displaced Workers		
Reemployed	73	19
Unemployed	14	52
Not in Labor Force	12	60
Total	100	29
Reemployed Displaced Workers		
Ratio of Current Earnings to Previous Earnings		
Less than 80 percent	32	26
80-94 percent	13	18
95-104 percent	15	16
105-120 percent	14	13
120 percent or more	25	14
Total	100	19

SOURCE: Congressional Budget Office tabulations of data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

NOTE: Workers were surveyed between 13 and 36 months after losing their jobs.

Many of the reemployed workers found jobs with pay roughly comparable with that of their old jobs; without taking inflation into account, 55 percent had weekly earnings that were 95 percent or more of their previous earnings.[3] Those who had lower earnings in their new jobs, however, tended to have much lower earnings: about one-third of reemployed displaced workers had weekly earnings at least 20 percent below the earnings they had in their old jobs.[4] In addition, workers who incurred the largest pay cuts also tended to be those who had been jobless longest.

The state of the national economy had an important influence on the extent of joblessness after displacement. Displaced workers who lost jobs in the early 1980s were jobless 40 weeks, on average, compared with an average of about 20 weeks for workers displaced in 1987 and 1988, when the economy was stronger (see Figure 4). The likelihood that workers were reemployed shows the same cyclical pattern, with the percentage of displaced workers who found new jobs generally rising through most of the 1980s. The average duration of joblessness for workers who found new jobs exhibits the same basic pattern, falling from almost 30 weeks in 1981 to 15 weeks in 1988.

There is no evidence of any cyclical pattern or trend in the earnings of workers who found jobs, as shown by the proportion of reemployed workers with earnings 20 percent or more below the earnings of their old jobs. The apparent absence of a relationship between loss of earnings and the economy is particularly surprising in view of the change in the industrial composition of displacement over the past decade. Workers displaced from high-paying jobs in the steel and auto industries during the early 1980s presumably would have been more likely to have trouble regaining their prior earnings than workers displaced from retail trade jobs late in the decade. If those steel and auto workers were less likely to find new jobs, however, such losses would not be apparent in the earnings data.

The state of the national economy is only one source of variation in workers' experiences

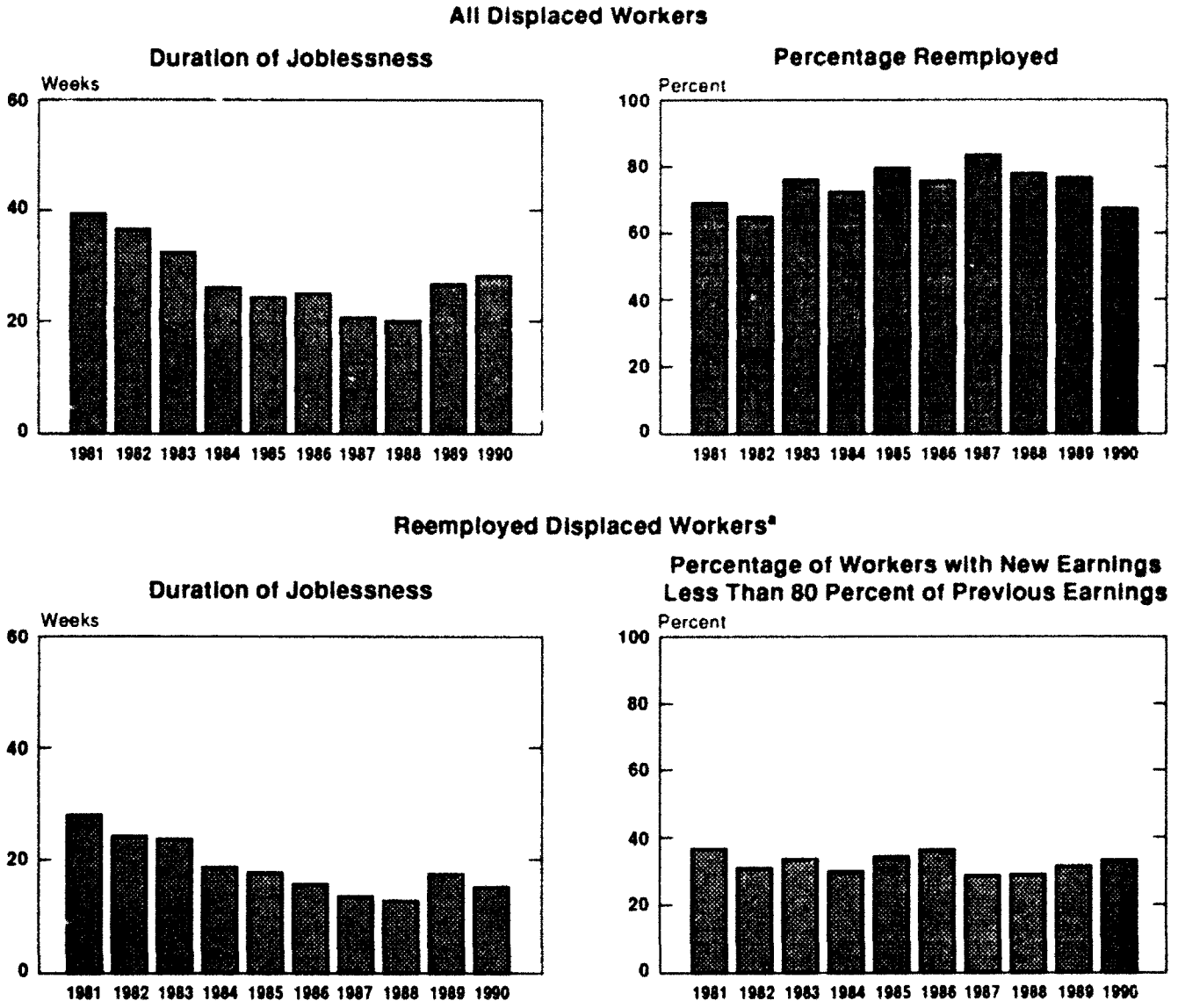
3. Displaced workers may also have experienced changes in nonwage compensation. Unfortunately, the CPS supplements provide no information about changes in pensions and vacations and only limited information about changes in health insurance coverage. About one in five of the roughly 70 percent of displaced workers who had health insurance in their old jobs were not covered by any group health insurance plan when they were surveyed. At the same time, about one in two of the workers who did not have health insurance before were covered.

4. To make the wage data consistent within each survey, the wages of workers who were displaced in the earliest year were adjusted upward by the growth in the employment cost index during that year. The data were not adjusted for price inflation. Thus, the wages of workers displaced in 1989 and 1990 are expressed in 1990 dollars and compared with earnings in new jobs in January 1992.

after being displaced. The characteristics of workers themselves are also important, with older, longer-tenured, and less-educated workers faring much worse than others. The circumstances of displacement also matter: workers who lost jobs in industries that were contracting (or growing more slowly than average) and those who lived in states with relatively high unemployment rates also fared worse.

Despite variation over the business cycle in workers' outcomes after displacement, the relationships between workers' characteristics and their likelihood of difficulties are quite stable. That is, the kinds of workers who were

Figure 4.
Outcomes Following Displacement, by Year of Job Loss, 1981-1990



SOURCE: Congressional Budget Office tabulations of data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

a. Includes people who are working part time.

Table 3.
Joblessness and Reemployment Among All Displaced Workers, by Selected Characteristics, 1981-1990

Characteristic	Percentage of All Displaced Workers in Category	Average Number of Weeks Jobless (Up to survey date)	Percentage Employed at Survey Date
Job Tenure			
Less than 3 years	50	25	74
3-4 years	16	28	77
5-9 years	17	31	77
10 or more years	16	37	65
Age			
18-34	55	25	76
35-44	23	26	79
45-54	13	35	70
55-59	5	40	61
60 and older	4	53	32
Schooling Completed			
Less than 12 years	19	39	58
12 years	44	29	73
13-15 years	22	23	79
16 or more years	15	22	87
Sex			
Male	63	27	77
Female	37	32	68
Total	100	29	73

SOURCE: Congressional Budget Office estimates based on data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

jobless longer in bad years were also jobless longer in good years, and similar workers incurred losses of earnings in both good and bad years. This stability suggests that the experiences of workers displaced in the 1980s are likely to be applicable to workers displaced in the future.

Likelihood of Reemployment

In general, older workers, those who had been with their employer the longest, and less-educated workers tended to be jobless longer and were less likely to find new jobs.[5] Workers who were 60 or older when they lost their jobs were jobless an average of 53 weeks, and only 32 percent were reemployed at the time of the survey (see Table 3).[6] The relationship between job tenure and joblessness also stands out clearly: workers who had been with their employer for 10 or more years were jobless an average of 37 weeks, compared with 29 weeks for displaced workers overall.

Workers who had not completed high school--about one-fifth of all displaced workers--had much greater difficulties than other workers. They were jobless 39 weeks, on average, and only 58 percent were reemployed when surveyed. In contrast, workers with 16 or more years of schooling--that is, those with

5. Age is estimated at the time of job loss. Schooling is measured as the number of years completed at the time of the survey.

6. Year-by-year tabulations are presented in Appendix B.

a college degree or at least significant college training--were jobless 22 weeks, on average, and 87 percent were reemployed when surveyed.

Independent Effects

The above findings are based on simple, one-way cross-tabulations that do not take into account possible relationships among workers' characteristics or variation in the circumstances of displacement. The analysis that follows uses a statistical technique that identifies the independent effects of each characteristic--and that also permits other factors to be taken into account--to look more closely at the factors determining reemployment.[7]

When other characteristics are taken into account, there is no statistically significant difference in the likelihood of reemployment between workers with 10 or more years of job tenure and those with less than three years (see Table 4). The independent effect of age on the likelihood of reemployment remains strong. Holding other factors constant, workers aged 55 to 59 were almost 17 percentage points less likely to be reemployed than workers aged 18 to 34, and workers 60 and older were 46 percentage points less likely to be reemployed. Virtually all of this difference is associated with older workers' being more likely to have withdrawn from the labor force; at the time of the surveys, the fraction of workers 60 and older who were unemployed was the same as that for younger workers.[8]

The effects of schooling on the likelihood of reemployment are slightly smaller, but still sizable, when other factors are taken into account. Workers with 16 or more years of schooling were about 10 percentage points more likely to be reemployed than those with just 12 years; the latter, in turn, were about 11 percentage points more likely to be reemployed than those with less than 12 years of schooling. Blue-collar workers were 6 percentage points less likely than white-collar workers to be reemployed; this effect is independent of differences between these two groups in their educational attainment.

Women were about 13 percentage points less likely than men to be reemployed, holding other factors constant, and nonwhites were about 11 percentage points less likely than whites to be reemployed. The relatively lower likelihood of reemployment among women appears to be attributable to their greater tendency to withdraw from the labor force. At the time of the surveys, for instance, 20 percent of women were out of the labor force, compared with just 8 percent of men. There was no difference between whites and nonwhites in participation in the labor force at the time of the surveys.

Because plant shutdowns are readily identifiable events, they have received widespread attention as a possible way to pinpoint workers in need of assistance. One surprising finding, therefore, is that workers who reported being displaced because their employers closed or relocated facilities were more likely--albeit only slightly--to be reemployed than workers who lost jobs because of slack work. An explanation may be that such workers are immediately confronted with the reality of their situation and have absolutely no reason to delay looking for new work in the hope that they may regain their old jobs.

In general, one would expect workers displaced from declining industries, and those who must seek work in a relatively poor labor market, to fare worse than others. The analysis bears out this supposition: workers displaced from jobs in higher-growth industries

7. As discussed earlier, the findings concerning the duration of joblessness among all displaced workers may reflect in part the tendency of older workers to retire. This tendency is shown clearly by examining the likelihood that a worker was reemployed at the time of the survey.

8. The distinction between being unemployed and not being in the labor force is more than just a technical one. Most directly, jobless workers looking for work are eligible for Unemployment Insurance benefits; displaced workers who withdraw from the labor force are not. Less directly, but also important for consideration of policies to assist workers who experience difficulties, some of the workers who did not return to work following displacement essentially retired.

Table 4.
Effects of Workers' Characteristics and Circumstances of Displacement on the Likelihood of Reemployment for All Displaced Workers

Workers' Characteristics and Circumstances of Displacement	Percentage in Category	Effect on Likelihood of Reemployment (Percentage points)[a]
Age		
18-34	55	b
35-44	23	1.3[c]
45-54	13	-5.1
55-59	5	-16.6
60 and older	4	-46.2
Schooling Completed		
Less than 12 years	19	-11.4
12 years	44	b
13-15 years	22	3.5
16 or more years	15	10.4
Blue-Collar Worker	57	-6.0
Job Tenure		
Less than 3 years	50	b
3-4 years	16	2.9
5-9 years	17	4.6
10 or more years	16	-0.5[c]
Female	37	-12.5
Nonwhite	14	-10.6
Reason for Job Loss		
Employer closed facility	50	5.8
Job or position abolished	14	2.7
Slack work	36	b
Employment Change in Old Industry (Average value 0.84 percent)	n.a.	0.4
Difference Between State and National Unemployment Rates (Average value 2.15 percent)	n.a.	-0.2
National Unemployment Rate (Average value 7.20 percent)	n.a.	-0.5

SOURCE: Congressional Budget Office estimates based on data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

NOTES: Logistic equation estimated using an unweighted sample of 11,385 people with valid data. The average of the dependent variable is 73 percent. n.a. = not applicable.

a. Effect in relation to the omitted category for each characteristic.

b. Category omitted for regression.

c. Not statistically significant at a 90 percent level of confidence.

were more likely to be reemployed than those displaced from slow-growing or declining industries, and workers displaced in states with below-average unemployment rates fared better than other workers.[9] These effects are small, however, even though both are statistically significant.

Combined Effects

The effects discussed above are independent effects, with older workers, for example, being less likely to be reemployed than younger workers regardless of their level of schooling. The combined effects are also interesting, not only because they illustrate the types of worker most likely to have trouble finding a new job, but also because they illustrate how the effects of different characteristics can offset or reinforce one another. For example, the combined effect of being 60 or older and not having completed high school is a reduction of more than 50 percentage points in the likelihood of reemployment compared with the average displaced worker (see Figure 5). In contrast, the combined effect of being aged 45 to 54 and having completed 16 or more years of schooling is an increase of about 8 percentage points in the likelihood of being reemployed.

Joblessness and Losses in Earnings for Reemployed Workers

The analysis of joblessness and reemployment in the preceding section is complicated by the presence of older workers--and, to a lesser extent, women--who withdrew from the labor force after losing their jobs. Although the timing of retirement for such workers almost certainly differed from what they would have chosen had they not been displaced, the duration of joblessness is arguably a poorer measure of economic loss for retired workers than for others. Some, for example, may have received special compensation or pension eligibility to retire early.

Thus, another approach to identifying workers likely to experience difficulties is to examine what happened to those who found new jobs. How long did it take them to find jobs? How did the earnings in their new jobs compare with the earnings in the jobs they lost?

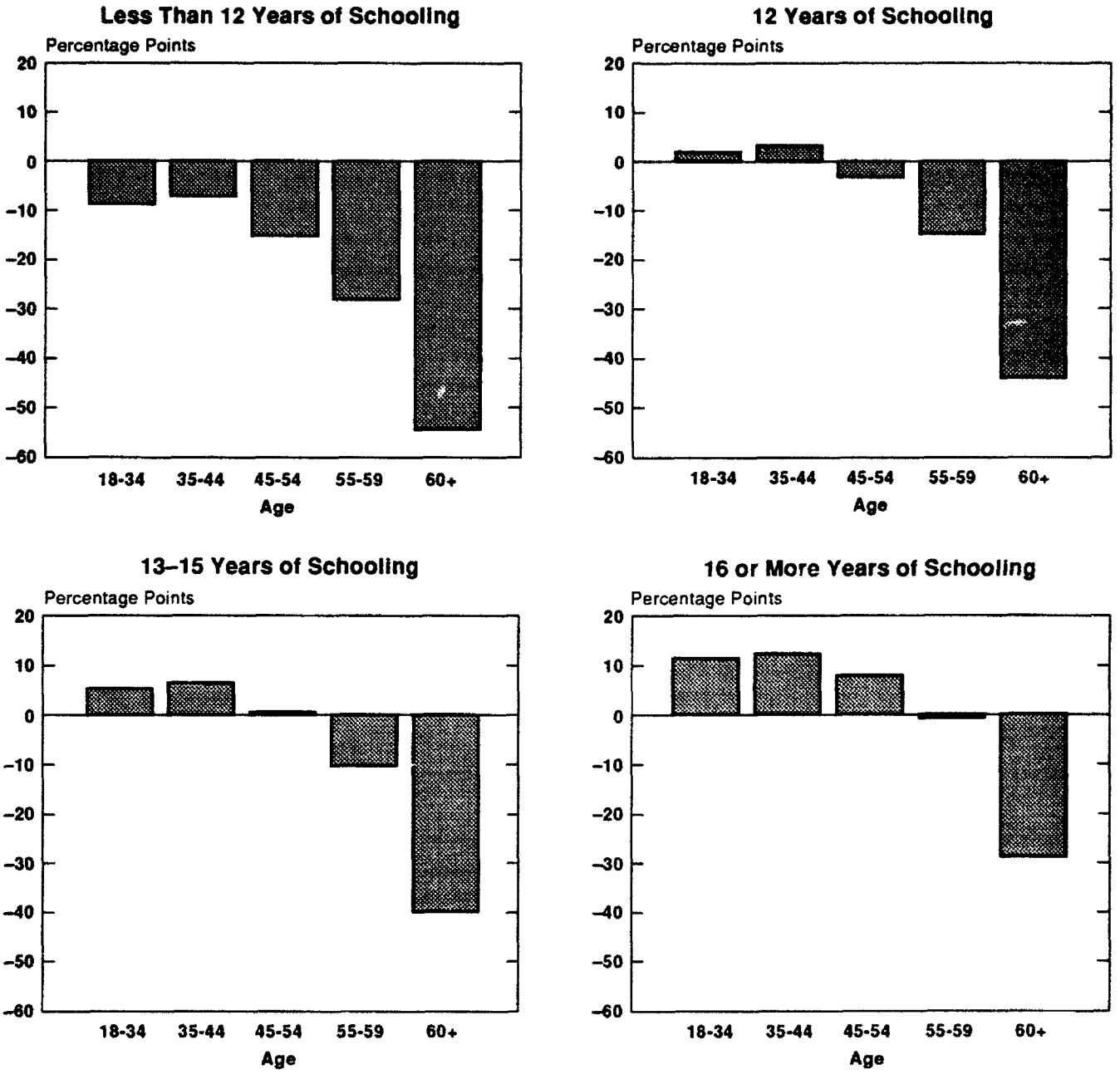
In general, the characteristics associated with difficulties in adjustment among all displaced workers are also important factors determining the duration of joblessness among reemployed workers. That is, long-tenured workers, older workers, and less-educated workers were less likely to find jobs, and those who did find jobs took longer to do so (see Table 5). Compared with displaced workers as a whole, the average duration of joblessness for reemployed displaced workers is lower and the differences among groups much smaller, but the same patterns are apparent. For example, workers with 10 or more years of job tenure took about seven weeks longer to find jobs than workers with less than three years of tenure.

Job tenure, age, and schooling are also important in explaining losses in earnings, and their effects generally work in the same direction as their effects on joblessness. For example, almost half of the workers with the longest job tenure had new weekly earnings at least 20 percent below their old ones; this figure compares with about 30 percent of workers with the shortest tenure.

As before, these findings are based on crosstabulations that do not take into account relationships among workers' characteristics or the circumstances of their job loss. Although the basic findings remain unchanged, the next two sections provide a more detailed

9. Data at the level of the local labor market would be preferable to state-level data, but are not available. In this analysis, state refers to workers' current residences, not necessarily the states in which they lost their jobs.

Figure 5.
Illustrative Relative Effects of Schooling and Age on the Likelihood of Reemployment for All Displaced Workers



SOURCE: Congressional Budget Office estimates based on data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

NOTES: For each schooling and age category, the figure shows an estimate of how the likelihood of reemployment among displaced workers in that category compared with the average likelihood for all displaced workers. For example, the top left panel shows that workers aged 18 to 34 who had completed less than 12 years of schooling would have been about 9 percentage points less likely to be reemployed than a typical displaced worker. The average likelihood of reemployment for all displaced workers was 73 percent. These estimates are based on the regression coefficients reported in Table 4.

analysis of which workers have the greatest difficulty in finding new, sufficiently well-paying jobs.

Duration of Joblessness for Reemployed Workers

When other factors are taken into account, the effects of age on the duration of joblessness for those who were reemployed were slightly smaller than a simple cross-tabulation suggests. Workers aged 55 to 59 took about four weeks longer to find a new job, on average, than did those aged 18 to 34, and those 60 and older took about eight weeks longer (see Table 6). However, because they had a lower likelihood of finding work at all, workers 55 and older accounted for only about 6 percent of reemployed displaced workers.

Schooling also had a very small impact on the duration of joblessness among workers who found new jobs, once other factors are taken into account. High school dropouts took only about two weeks longer to find a job than did workers with exactly 12 years of schooling, and the difference between high school and college graduates was not statistically significant. This small effect probably reflects sample selection: high school dropouts were generally less likely than other workers to find new jobs and thus to appear in this sample.

Table 5.
Joblessness and Earnings Losses Among Reemployed Displaced Workers, by Selected Characteristics, 1981-1990

Characteristic	Percentage of Reemployed Workers in Category	Average Number of Weeks Jobless	Percentage with New Earnings Less Than 80 Percent of Old Earnings
Job Tenure			
Less than 3 years	50	16	28
3-4 years	17	20	29
5-9 years	17	22	38
10 or more years	14	23	46
Age			
18-34	57	17	29
35-44	24	19	34
45-54	12	22	37
55-59	4	23	43
60 and older	2	26	52
Schooling Completed			
Less than 12 years	15	23	39
12 years	44	19	33
13-15 years	23	16	32
16 or more years	18	17	24
Sex			
Male	66	18	31
Female	34	20	34
Total	100	19	32

SOURCE: Congressional Budget Office estimates based on data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

Table 6.
Effects of Workers' Characteristics and Circumstances of Displacement on the Duration of Joblessness for Reemployed Displaced Workers

Workers' Characteristics and Circumstances of Displacement	Percentage in Category	Effect on Joblessness (Weeks)[a]
Age		
18-34	57	b
35-44	24	1.6
45-54	12	4.1
55-59	4	4.5
60 and older	2	7.6
Schooling Completed		
Less than 12 years	15	2.4
12 years	44	b
13-15 years	23	-1.5
16 or more years	18	-0.5[c]
Blue-Collar Worker	53	3.1
Job Tenure		
Less than 3 years	50	b
3-4 years	17	3.2
5-9 years	17	4.4
10 or more years	14	5.1
Female	34	3.4
Nonwhite	12	4.0
Reason for Job Loss		
Employer closed facility	51	-4.4
Job or position abolished	14	-1.5[c]
Slack work	35	b
Employment Change in Old Industry (Average value 1.03 percent)	n.a.	-0.3
Difference Between State and National Unemployment Rates (Average value 0.86 percent)	n.a.	0.1
National Unemployment Rate (Average value 7.16 percent)	n.a.	1.8

SOURCE: Congressional Budget Office estimates based on data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

NOTES: Ordinary least squares estimate using an unweighted sample of 8,184 people with valid data. The average of the dependent variable is 19 weeks. n.a. = not applicable.

a. Effect in relation to the omitted category for each characteristic.

b. Category omitted for regression.

c. Not statistically significant at a 90 percent level of confidence.

Those who did may have had other skills not measured in the CPS data that compensated for their lack of formal schooling.

Lengthy job tenure was not a statistically significant factor in determining whether workers found new jobs, but among those who did, it was an important determinant of how long it took.[10] Holding other factors constant, a worker with 10 or more years of experience took about five weeks longer to find work than one with less than three years on the job.

Women and nonwhites generally took longer to find new jobs than did men and whites. Women were jobless three weeks longer, on average; nonwhites were jobless four weeks longer. As with schooling, the relatively weak relationship between sex or race and the duration of joblessness--compared with the effects on likelihood of reemployment--may reflect sample selection. That is, both women and nonwhites were relatively less likely to be reemployed; those who found new jobs may have had unmeasured skills that helped reduce the effects of sex and race on joblessness.

Employment changes in a worker's previous industry and the unemployment rate in his or her state also affected the length of time it took to find a job. The effects of these factors were quite small, however, as they were with the likelihood that a worker found a new job at all. For example, a worker displaced from an industry with rapid annual growth in employment--say, 5 percent a year--would have been jobless only about three weeks less than a worker displaced from an industry that was reducing employment at the same rate.

The effects of the business cycle on the length of time it took workers to find new jobs show up very clearly, with each percentage point in the unemployment rate translating into almost two additional weeks of joblessness. A worker displaced in a year of high unemployment (say, 1982) would thus have taken about two months longer to find a job than a similar worker displaced in 1988.

The results above indicate that among people who found new jobs, older workers and those with the longest job tenure took the most time to do so. It is illustrative to look at the combined effects of these characteristics to assess which workers are likely to experience the most difficulty finding new jobs. For example, the few workers aged 55 to 59 with 10 or more years of job tenure who were reemployed took about seven weeks longer to find new jobs than the typical displaced worker, and those 60 and older took almost 10 weeks longer (see Figure 6).

Likelihood of Earnings Loss

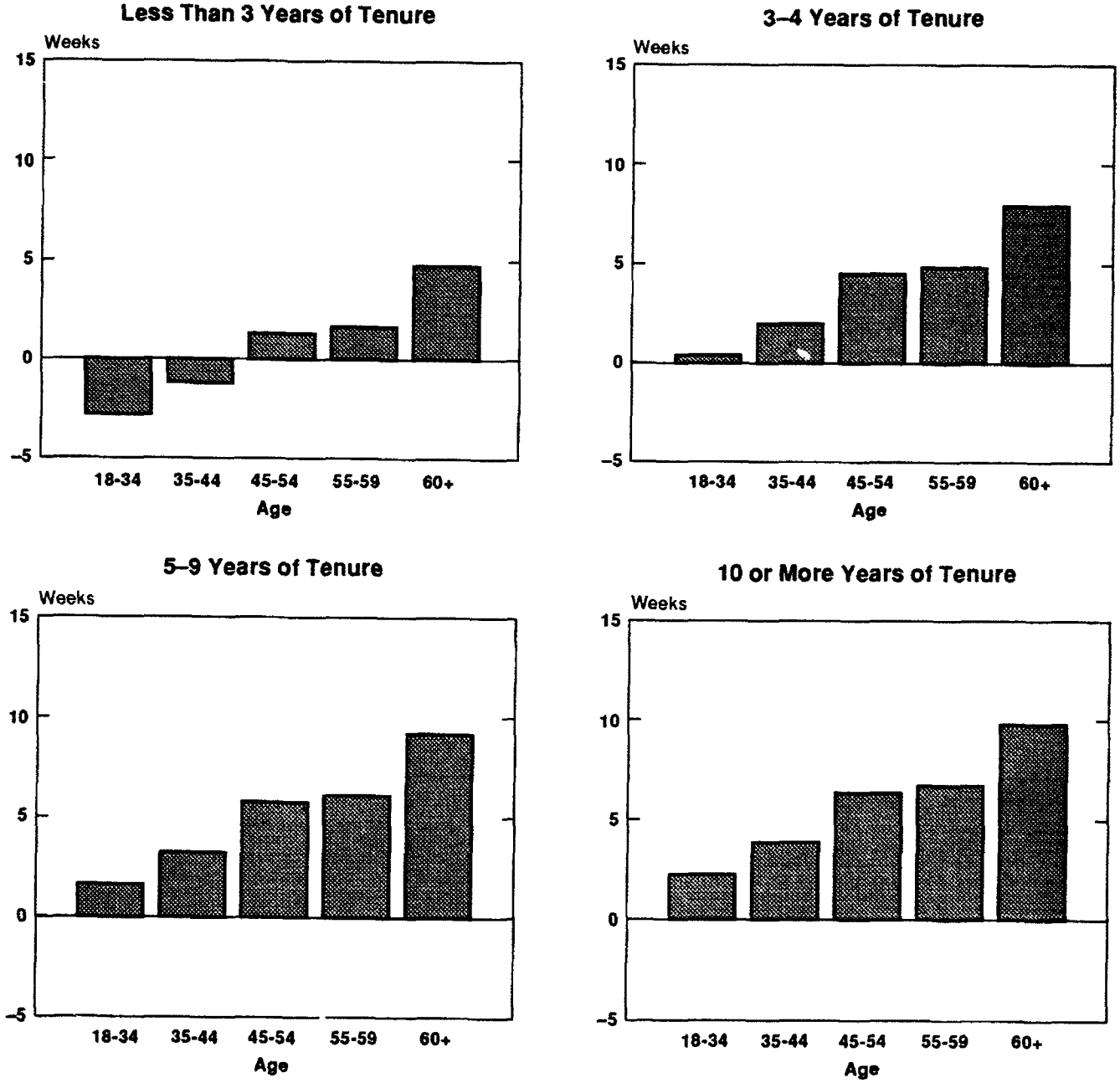
Over half of the displaced workers who found new jobs earned at least 95 percent of what they did before. About one-third of all workers who found new jobs earned less than 80 percent of their old wages, however, and many in this group had very low earnings ratios.[11] To examine the characteristics associated with substantial earnings losses, this analysis is based on estimates of the likelihood that a worker had new earnings less than 80 percent of his or her old ones.

Age, schooling, and job tenure had strong independent effects on the likelihood that a worker incurred an earnings loss. For example, workers aged 55 to 59 were 7 percentage points more likely than workers aged 18 to 34 to have new earnings less than 80 percent of their old earnings (see Table 7). Although workers 55 and older were much more likely to incur a substantial earnings loss,

10. The small effect that tenure had on likelihood of finding a new job may reflect the fact that the two groups most likely to withdraw from the labor force--older workers and women--were likely to have very different levels of job tenure.

11. This figure includes a relatively small number of workers who found part-time jobs. Excluding such workers would reduce to just under 30 percent the proportion of reemployed workers with earnings less than 80 percent of their previous level.

Figure 6.
Illustrative Relative Effects of Job Tenure and Age on the Duration of Joblessness for Reemployed Displaced Workers



SOURCE: Congressional Budget Office estimates based on data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

NOTES: For each job tenure and age category, the figure shows an estimate of how the duration of joblessness among reemployed displaced workers in that category compared with the average duration for all reemployed displaced workers. For example, the top left panel shows that workers aged 18 to 34 who had less than three years of job tenure would have been jobless about three weeks less than a typical reemployed displaced worker. The average for all reemployed displaced workers was 19 weeks. These estimates are based on the regression coefficients reported in Table 6.

Table 7.
Effects of Workers' Characteristics and Circumstances of Displacement on the Likelihood of Having New Weekly Earnings Less Than 80 Percent of Previous Earnings for Reemployed Displaced Workers

Workers' Characteristics and Circumstances of Displacement	Percentage in Category	Effect on Likelihood of Earning at Least 20 Percent Less (Percentage points)[a]
Age		
18-34	57	b
35-44	24	1.1[c]
45-54	12	3.7
55-59	4	7.3
60 and older	2	14.5
Schooling Completed		
Less than 12 years	15	4.0
12 years	44	b
13-15 years	23	1.5
16 or more years	18	-4.6
Blue-Collar Worker	53	3.4
Job Tenure		
Less than 3 years	50	b
3-4 years	17	1.9
5-9 years	17	7.8
10 or more years	14	16.8
Female	34	5.1
Nonwhite	12	-2.2[c]
Reason for Job Loss		
Employer closed facility	51	-4.3
Job or position abolished	14	-1.7[c]
Slack work	35	b
Employment Change in Old Industry (Average value 1.03 percent)	n.a.	-0.5
Difference Between State and National Unemployment Rates (Average value 0.86 percent)	n.a.	0.1
National Unemployment Rate (Average value 7.16 percent)	n.a.	0[c]

SOURCE: Congressional Budget Office estimates based on data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

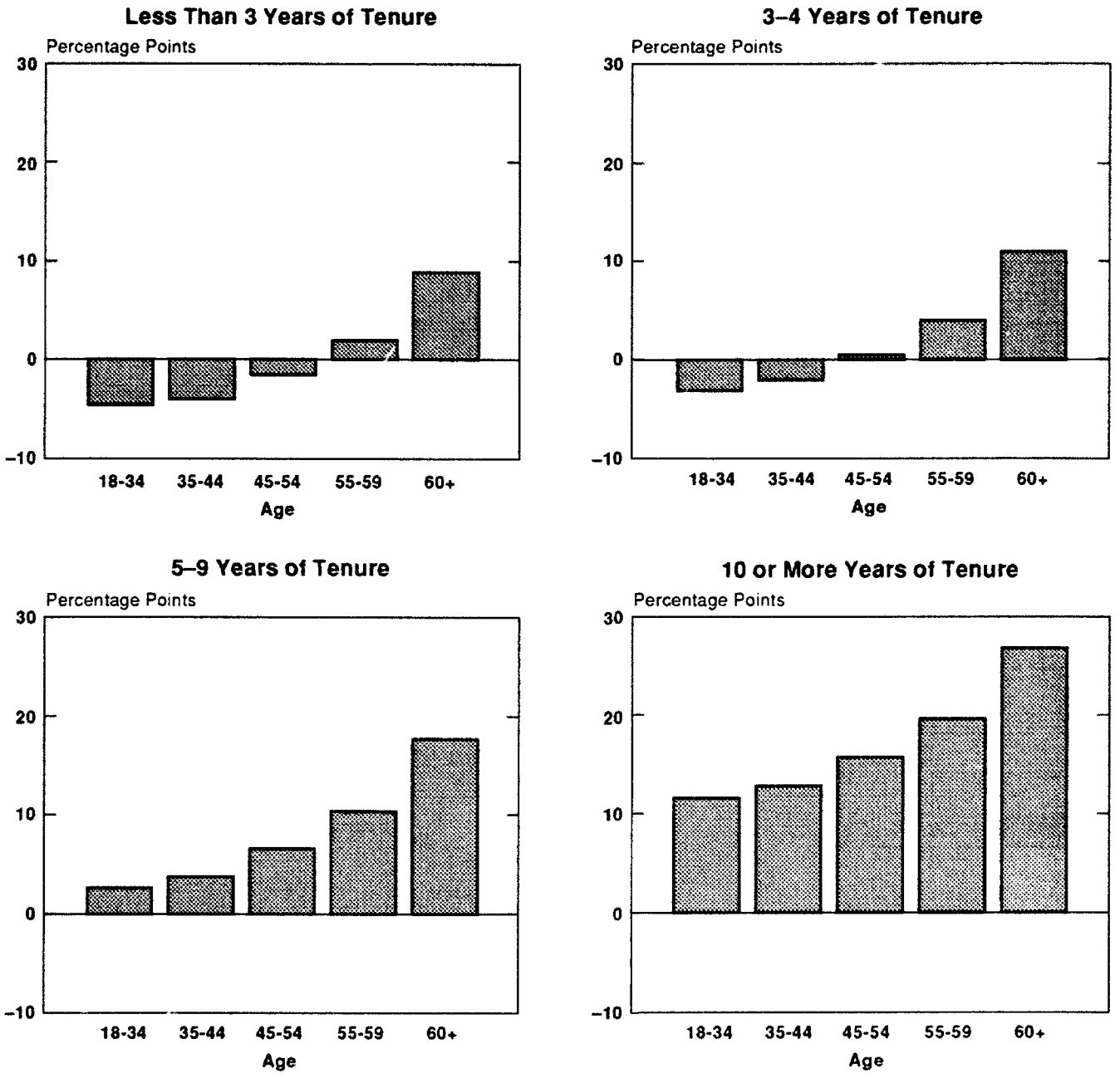
NOTES: Logistic equation estimated using an unweighted sample of 7,010 people with valid data. The average of the dependent variable is 32 percent. n.a. = not applicable.

a. Effect in relation to the omitted category for each characteristic.

b. Category omitted for regression.

c. Not statistically significant at a 90 percent level of confidence.

Figure 7.
Illustrative Relative Effects of Job Tenure and Age on the Likelihood of Having New Weekly Earnings Less Than 80 Percent of Previous Earnings for Reemployed Displaced Workers



SOURCE: Congressional Budget Office estimates based on data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

NOTES: For each job tenure and age category, the figure shows an estimate of how the likelihood of having new weekly earnings less than 80 percent of old weekly earnings among workers in that category compared with the average likelihood for all displaced workers. For example, the top left panel shows that workers aged 18 to 34 who had less than three years of job tenure would have been about 5 percentage points more likely to have lower weekly earnings than a typical reemployed displaced worker. The average likelihood for all reemployed displaced workers was 32 percent. These estimates are based on the regression coefficients reported in Table 7.

they accounted for only a very small fraction (6 percent) of reemployed workers.

Compared with high school graduates, dropouts were 4 percentage points more likely to have low earnings, other factors being equal, and college graduates were about 5 percentage points less likely. Blue-collar workers, many of whom were also likely to have had less than 12 years of schooling, were about 3 percentage points more likely than white-collar workers to have lower earnings. These results, combined with the previous results about the effects of schooling on length of joblessness, may indicate that workers with more schooling are more knowledgeable about how to search for work, are better able to assess the distribution of wages they face, or have skills that are more easily transferred.

The effects of job tenure on subsequent earnings are consistent with the theory of specific human capital. As discussed in Chapter 1, this theory holds that a (possibly large) fraction of a worker's earnings in a job reflects skills of value only to the current employer. A worker who loses a job would thus be expected to have a difficult time replacing his or her former earnings level and, in general, the longer the previous employment, the greater the loss in earnings would be. Workers with five to nine years' job tenure were about 8 percentage points more likely to incur a substantial loss in earnings than those with less than three years' job tenure; those with 10 or more years' tenure were 17 percentage points more likely.

Women were about 5 percentage points more likely to have new earnings less than 80 percent of their old earnings, a result that may reflect a greater tendency of women to work part-time in their new jobs. There was no statistically significant difference between whites and nonwhites in the likelihood of having lower earnings. Nonwhites were less likely to be reemployed, however.

Labor market conditions had a small but significant effect on the earnings that displaced workers attained in new jobs. Workers displaced from jobs in growing industries were less likely to have a reduction in earnings, other things being equal, and those living in states with relatively high unemployment rates were generally more likely to have a reduction. As discussed earlier, there was no evidence that the business cycle affected subsequent earnings; there was no statistically significant relationship between the national unemployment rate and the likelihood that a reemployed worker incurred an earnings loss.

The combined effects of age and job tenure on subsequent earnings were quite large. A worker aged 18 to 34 with 10 or more years of job tenure was 12 percentage points more likely to incur an earnings loss of at least 20 percent than the typical displaced worker (see Figure 7). A worker aged 55 to 59 with similar tenure was 20 percentage points more likely to incur a loss than the average worker. Given an average likelihood of 32 percent, this means that about half of reemployed older workers with long tenure saw their earnings drop by 20 percent or more. Again, these categories were also associated with the longest amount of time needed to find a new job.

Chapter Four

Programs to Provide Income and Reemployment Assistance

When workers are displaced, they often look to government for help in meeting a fundamental need: temporary income assistance until they find another job. Some also need help in preparing for and finding that new job. Others simply leave the job they lost on Friday and start a new job on Monday, with no need for any income or reemployment assistance.

The federal government, together with state governments, offers a wide range of programs to assist displaced workers who need income assistance or other help. The largest such program is the federal/state Unemployment Insurance (UI) system. Two smaller programs specifically designed for displaced workers are the Economic Dislocation and Worker Adjustment Assistance program, authorized by Title III of the Job Training Partnership Act, and the Trade Adjustment Assistance program.

Unemployment Insurance

The UI program provides weekly cash benefits to experienced workers who lose their jobs, whether or not the job loss is permanent. About three-quarters of the states require a one-week waiting period before benefits begin, and the rest generally require no waiting period. Work histories determine the specific duration and weekly amount of workers' benefits, but benefits are available for no more than 26 weeks in most states. The average weekly benefit in 1992 was about $170.

In the late 1980s, about 7 million unemployed workers a year received a total of $14 billion in benefits under regular state programs.[1] That amount increased to $17 billion in 1990, $24 billion in 1991, and $26 billion in 1992, reflecting the effects of the recession.

When insured unemployment is sufficiently high in a state, the federal/state Extended Benefit (EB) program automatically provides up to 13 additional weeks of benefits to eligible unemployed workers.[2] UI recipients in nine states became eligible for EB in various periods during the 1990-1991 recession.

In 1991, the Congress enacted the Emergency Unemployment Compensation (EUC) program, which temporarily extended the maximum duration of benefits. That program, which was amended in July 1992, enables unemployed workers who have exhausted their entitlement to regular UI benefits to receive up to 20 or 26 weeks of emergency benefits, with the maximum number of weeks depending on the extent of unemploy-

1. The figure of 7 million unemployed workers includes not only permanently displaced workers but also people who were temporarily laid off by their employer.

2. The "insured unemployment rate" in a state is the share of workers covered by the state's Unemployment Insurance program who are receiving regular benefits.

ment in their state.[3] About one-third of the 5 million UI recipients in early January were receiving EUC benefits.

The emergency program expires in March 1993, but an expansion of the permanent EB program will go into effect then. States will have the option of using a new method of triggering extended benefits--one that may generate a substantial increase in the number of unemployed workers eligible for these benefits. Under the new option, moreover, recipients in states that take up the option and have sufficiently high unemployment rates will be eligible for 20 weeks of additional benefits, rather than the 13 weeks allowed under the current EB program. Nonetheless, far fewer unemployed workers are likely to receive payments under the EB program than did so under the emergency program. CBO forecasts that about 240,000 people will receive EB payments in 1993 and fewer in 1994. By comparison, about 2.3 million people are expected to receive EUC payments in 1993.

Displaced workers are much more likely than other UI recipients to exhaust their benefits without having found another job. During the 1980s, about half of the displaced workers who received UI benefits exhausted them. In contrast, roughly one-third of all UI recipients ran out of benefits during that decade.[4]

A substantial share of displaced workers do not receive UI benefits. Data from the Current Population Survey supplements discussed in the preceding chapters indicate that only about three of every five displaced workers reported receiving UI benefits after losing their jobs. This is particularly surprising in view of the fact that UI benefits are an entitlement: all workers who lose jobs and who meet eligibility requirements can get cash assistance while they look for work (generally up to a maximum of 26 weeks). The question thus arises whether extending the duration of UI benefits would help these workers.

One key reason that many displaced workers did not receive UI benefits appears to be that many of them were jobless only a short time. Almost one-third of displaced workers were jobless less than five weeks, and only about 25 percent of these workers reported receiving benefits (see Figure 8). In contrast, more than 70 percent of workers jobless for at least five weeks reported getting benefits, with the percentage generally rising with the length of time without work.[5]

Workers who were jobless for only one week may not have been eligible for benefits--because of the waiting period--and those jobless for slightly longer periods may not have bothered to apply for benefits.[6] It is less

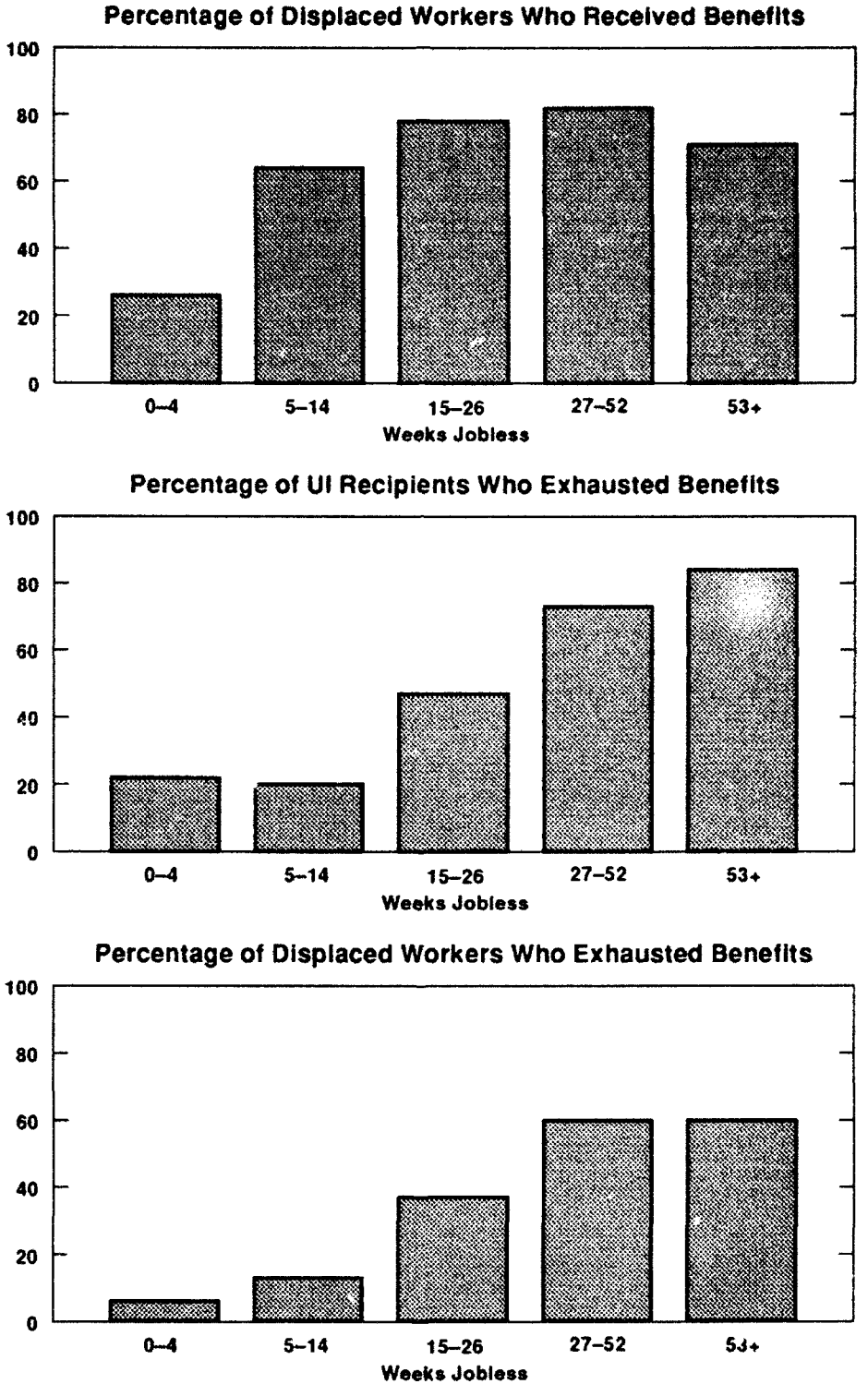
3. The Unemployment Compensation Amendments of 1992, enacted in July, provide workers who exhaust their entitlement to regular benefits with up to 26 weeks of additional benefits in states in which the adjusted insured unemployment rate is at least 5 percent or the total unemployment rate is at least 9 percent. At the time of enactment, 15 states, including many of the largest ones, met the criteria. Unemployed workers in all other states became eligible for up to 20 weeks of additional benefits. Unlike EB, these benefits are entirely paid for by the federal government. (The federal government pays half of the cost of EB payments.)

4. These findings are based on the exhaustion rate of UI recipients among the displaced workers in the Current Population Survey supplements discussed in Chapters 2 and 3 and on the exhaustion rate of all UI recipients reported in UI administrative records. A similar contrast was found in a study of people who received UI benefits in 1989, using a somewhat different set of criteria for identifying displaced workers. In that study, 36 percent of UI recipients who did not expect to be recalled at the time they were laid off exhausted their benefits, compared with 8 percent of those who expected to be recalled and had a definite recall date, and 26 percent of those who expected to be recalled and did not have a definite date. See Walter Corson and Mark Dynarski, *A Study of Unemployment Insurance Recipients and Exhaustees: Findings from a National Survey* (Princeton, N.J.: Mathematica Policy Research, September 1990), republished as Department of Labor, Unemployment Insurance Occasional Paper 90-3 (1990).

5. The exception to this statement is that the recipiency rate among displaced workers who were jobless for more than 52 weeks was slightly lower than that of displaced workers jobless for 27 to 52 weeks (71 percent versus 82 percent). This may reflect the former's greater likelihood of retiring after being displaced.

6. Based on data for all people who lost jobs, not just displaced workers, Wayne Vroman estimates that only about half of those who lost jobs in late 1989 and early 1990 applied for benefits and that only about 70 percent of the UI applicants received benefits. See *The Decline in Unemployment Insurance Claims Activity in the 1980s* (Washington, D.C.: Urban Institute, December 1990).

Figure 8.
Displaced Workers' Receipt and Exhaustion of Unemployment Insurance Benefits, by Duration of Joblessness



SOURCE: Congressional Budget Office tabulations of data from the January 1984, 1988, 1990, and 1992 Current Population Surveys.

NOTE: Data on exhaustion of benefits are not available for workers displaced in 1983 and 1984.

clear why workers who were jobless more than 15 weeks would not have received benefits. Some may have exhausted their entitlement to benefits during temporary layoffs that preceded their permanent layoff, or they may have still been receiving payments from their employer, or they may not have worked long enough to qualify for benefits. Others may have withdrawn from the labor force following layoff and chosen not to apply for benefits.

More than half of the displaced workers who did receive unemployment insurance exhausted their entitlement to benefits, and as would be expected, the likelihood of exhaustion rose with the duration of joblessness. About half of UI recipients who were jobless 15 to 26 weeks exhausted their benefits, compared with over 70 percent of those jobless 27 to 52 weeks and more than 80 percent of those jobless 53 or more weeks.

The relatively high rate of benefit exhaustion among workers who were jobless 15 to 26 weeks--fewer weeks than benefits are generally available--provides support for the notion that these workers had used up some of their entitlement before being laid off permanently. At the same time, it is puzzling that the exhaustion rate is not closer to 100 percent for workers who were jobless longer than 26 weeks. The relatively low rate of benefit exhaustion among these workers may reflect withdrawal from the labor force, because workers would not continue to receive benefits--even if they were otherwise eligible--if they did not actively seek work. Another possible explanation is that some of the long-term unemployed had delayed receiving UI benefits. Yet another possibility is that respondents to the CPS interpreted questions about the receipt and exhaustion of UI benefits to include payments from their companies or from other federal programs.[7]

Given the relationship between exhaustion of benefits and the duration of joblessness, it is not surprising to find that the characteristics of workers and the circumstances of displacement that are associated with lengthy joblessness are also associated with a greater likelihood of exhausting benefits. Older workers, for example, are much more likely to exhaust their entitlement to benefits, as are those with less schooling. There is no statistically significant relationship, however, between the national unemployment rate and the likelihood of exhausting UI benefits, which may reflect the availability of extended benefits in the high-unemployment years of the early 1980s.[8]

The Economic Dislocation and Worker Adjustment Assistance Program

Under Title III of the Job Training Partnership Act (JTPA), as amended by the Economic Dislocation and Worker Adjustment Assistance (EDWAA) Act of 1988, states are provided with federal funds to help displaced workers obtain employment through training and related services. Each state is required to designate a dislocated worker unit that has the ability to respond rapidly to major layoffs and plant closures. Affected individuals can receive job search assistance, retraining, and (in some cases) cash payments.

Eighty percent of the money appropriated for EDWAA is distributed to states through an apportionment formula based on various measures of unemployment. The states, in turn, distribute the majority of their allotments to local agencies. Twenty percent of the total appropriation is reserved for distribution by the Secretary of Labor, largely for discretionary grants for projects serving workers displaced

7. Trade Adjustment Assistance or supplementary unemployment benefits from their former employer, for example.

8. Data for workers displaced in 1983 and 1984 are not included in the analysis of UI recipiency and exhaustion because these workers were not asked about benefit exhaustion.

by mass layoffs and for multistate or industrywide projects.

The criteria for qualifying as a displaced (or "dislocated") worker eligible for services under EDWAA are quite broad. Individuals are eligible who:

> (A) have been terminated or laid off or who have received a notice of termination or layoff from employment, are eligible for or have exhausted their entitlement to unemployment compensation, and are unlikely to return to their previous industry or occupation;
>
> (B) have been terminated or have received a notice of termination of employment, as a result of any permanent closure of or any substantial layoff at a plant, facility, or enterprise;
>
> (C) are long-term unemployed and have limited opportunities for employment or reemployment in the same or a similar occupation in the area in which such individuals reside . . . ; or
>
> (D) were self-employed . . . and are unemployed as a result of general economic conditions in the community in which they reside or because of natural disasters. . . .[9]

Although these criteria for eligibility are far reaching, available funding is not enough to serve all workers eligible for EDWAA. For 1993, $517 million has been appropriated for the program. The Department of Labor estimates that this amount should enable more than 200,000 displaced workers to participate in training and other activities. The level of funding is about the same as was appropriated for the program in 1991 and 1992. Funding for retraining displaced workers under Title III of JTPA has grown substantially since the enactment of EDWAA. In 1987 (the year before the EDWAA amendments were enacted), only $200 million was appropriated for employment and training activities for displaced workers under JTPA.

After the enactment of EDWAA, the Job Training Partnership Act was again amended to provide reemployment assistance to several groups of displaced workers whose job losses were related to implementing the Clean Air Act or cutting defense spending. The Clean Air Act Amendments of 1990 authorized the Clean Air Employment Transition Assistance program as a new section of Title III of JTPA. The total authorization for 1992 through 1997 is $250 million, $50 million of which was appropriated for 1993.

The Defense Economic Adjustment, Diversification, Conversion, and Stabilization Act of 1990 authorized $150 million to assist displaced defense workers. The funds were appropriated to the Department of Defense and transferred from the Defense Department to the Department of Labor under a memorandum of agreement signed in August 1991. These funds must be obligated by September 30, 1997. Through the end of September 1992, 25 grants totaling about $30 million had been awarded under this program. About 15,000 displaced workers were expected to participate in the activities funded by these grants. More recently, the National Defense Authorization Act for Fiscal Year 1993 authorized the Defense Diversification program, which would also provide reemployment assistance to displaced defense workers. Former military and civilian employees of the Defense Department, as well as displaced employees of defense contractors, would also be eligible.[10]

9. Title III, section 301(a) of the Job Training Partnership Act, as amended in 1988 by the Trade and Competitiveness Act (102 Stat. 1524, 29 U.S.C. 1651). These criteria apply to the main program authorized by this title, generally referred to as the EDWAA program. Three smaller programs for workers displaced because of the Clean Air Act or defense cutbacks, described later in the text, have their own specific eligibility criteria. A thorough description of all four programs is provided in Congressional Research Service, "Training for Dislocated Workers Under the Job Training Partnership Act," CRS Report for Congress 92-901 EPW (December 1992).

10. The Defense Department's appropriation for 1993 provides $75 million to fund this new program.

The funds for all of these programs are mainly used to provide classroom training, on-the-job training, and job search assistance to the participants. Almost 40 percent of the displaced workers whose participation ended in program year 1990 (July 1990 through June 1991) had taken part in classroom training, which is often provided through local school systems and community colleges. The length of stay in the program for these participants was about 25 weeks. About 25 percent of the participants were enrolled in job search assistance, and 15 percent participated in on-the-job training activities, which were typically of shorter duration.[11]

The limited information available about the EDWAA program indicates that few participants have received income support (aside from their entitlement to Unemployment Insurance benefits) and that, perhaps as a consequence, few have participated in long-term training programs.[12] Data from administrative reports of the Department of Labor show that three-quarters of the participants in 1990 found jobs soon after leaving the program, at an average starting wage of $8.20 per hour. But no evaluations of the program's impact have yet been conducted. Thus, it is not known how many of the participants would have found jobs on their own without the program, or whether the program helped them find a higher-paying job.

11. The data for this paragraph come from the Job Training Quarterly Survey data base maintained by the Department of Labor, as reported in Department of Labor, Employment and Training Administration, "Job Training Quarterly Survey: JTPA Title IIA and III Enrollments and Terminations During Program Year 1990 (July 1990-June 1991)" (January 1992).

12. General Accounting Office, *Dislocated Workers: Comparison of Assistance Programs*, Briefing Report to Congressional Requesters (September 1992); and Department of Labor, Employment and Training Administration, *Study of the Implementation of the Economic Dislocation and Worker Adjustment Assistance Act*, prepared by SRI International (1992). In addition, the latter study (p. VII-12) found that relocation assistance to displaced workers, although authorized by EDWAA, was not offered by many of the local programs. Only five of the 30 local areas visited provided any relocation assistance; among these five, the assistance usually consisted merely of providing information about job openings outside the area.

Trade Adjustment Assistance

Trade Adjustment Assistance (TAA) is the largest of the special programs that have been created for displaced workers whose job losses are associated with specific federal policies. TAA offers income replacement benefits, training, and related services to workers unemployed because of import competition. Annual outlays for this program have been between $150 million and $250 million in recent years. (The combined cost of other special programs--for workers displaced by the enlargement of the Redwood National Park, the reorganization of several railroads into Conrail, and the deregulation of the airline industry--is less than $2 million a year.)[13]

To obtain TAA benefits, workers from a firm must first petition the Secretary of Labor for certification and then meet other requirements for eligibility. In order for a group of workers to qualify, the Secretary must conclude that a significant share of the firm (or a subdivision) is threatened with displacement; sales or production have decreased; and increased imports have "contributed importantly" to the reductions in employment and in sales or production.[14]

Cash benefits are available to certified workers, but only after their UI benefits run out. The weekly TAA benefit is generally equal to the amount of the UI benefit that the individual had been receiving. A displaced worker can receive up to 52 weeks of benefits from TAA if he or she is participating in an approved training program. In 1991, 25,000

13. These and other federal programs for displaced workers are described in Congressional Research Service, "Income Support for Workers Dislocated by Federal Policy Initiatives," CRS Report for Congress 90-330 EPW (July 1990).

14. A recent report by the General Accounting Office underscores the difficulty of making accurate determinations. See *Dislocated Workers: Improvements Needed in Trade Adjustment Assistance Certification Process* (October 1992).

displaced workers received cash assistance. They got an average weekly benefit of about $170 for 23 weeks. Total outlays for these benefits were $116 million.

Displaced workers certified for TAA are eligible for training and other reemployment assistance. Training is paid for by the program, either directly or through a voucher, if the program determines that no suitable employment is otherwise available and that the individual can reasonably expect to benefit from participating in the training.[15] About 20,000 displaced workers received reemployment assistance--mostly training--through this program in 1991. In addition, about 500 workers received job search allowances to seek work outside their commuting area, and about 800 workers got relocation assistance to take a new job in another area. Total outlays for reemployment assistance were $65 million in 1991.

TAA differs from EDWAA in two critical ways. First, the eligibility criteria for TAA are much more restrictive; only displaced workers whose job losses are linked to imports are covered. Second, the majority of the funds are used to extend the duration of UI benefits for eligible workers who exhaust regular benefits and are participating in training programs, whereas few EDWAA participants receive income assistance from that program.

Although the TAA program is now relatively small, it was once much larger and has been suggested as a model for new programs to assist workers displaced for a wide variety of other reasons. Annual outlays in 1980 and 1981 were about $1.5 billion, with about 500,000 people receiving benefits in 1980 and 300,000 in 1981. Subsequent restrictions on certification requirements and benefit amounts, as well as other changes, considerably diminished the scale of the program.

15. Other conditions are a reasonable expectation that the individual can be employed following completion of the training, the approved training is available, the worker is qualified for the training, and the training is suited to the individual's needs and available at a reasonable cost. For more detailed information about this and other aspects of the TAA program, see Congressional Research Service, "Trade Adjustment Assistance: The Program for Workers," CRS Report for Congress 92-73 EPW (December 1991).

Chapter Five

Policy Implications

The 103rd Congress is likely to consider what new measures, if any, should be taken to help displaced workers. This issue could take on particular urgency as the Congress considers the North American Free Trade Agreement, which it is expected to do in early 1993. Similarly, any deliberations over further reductions in defense spending will probably include considering proposals to aid workers displaced because of the cuts. The Congress might wish to consider increasing the amount of income support available to displaced workers or providing them with additional reemployment assistance.

The three programs described in Chapter 4 provide the starting point for this debate. Unemployment Insurance is the main program that gives income assistance to displaced workers (as well as to other workers who lose their jobs). The Economic Dislocation and Work Adjustment Assistance program and the Trade Adjustment Assistance program provide reemployment assistance and are often used as models for legislative proposals to expand aid to displaced workers. For example, in August 1992 President Bush announced that the Administration was developing a new program for displaced workers--Advancing Skills through Education and Training Services (ASETS)--that would largely be based on what it viewed as the best features of EDWAA.[1] Other advocates have proposed expanding TAA coverage to encompass workers who lose their jobs because of NAFTA, defense cuts, or other government policies. New proposals can be expected from the Clinton Administration.

Are the Existing Programs Sufficient?

Two sets of findings are relevant to this question. The first relates to whether the existing programs are sufficient to serve the number of people who already need help. The second relates to whether there is likely to be a substantial increase in the number of displaced workers in the next few years or in the severity of the problems they will face.

The information provided in this study and elsewhere about workers displaced during the 1980s indicates that roughly half of the displaced workers who received UI benefits exhausted their benefits without having found another job, compared with about one-third of all UI recipients. (Options for expanding the duration of UI benefits are discussed below.)

The analysis also indicates that many of the displaced workers who found new jobs incurred substantial reductions in earnings, thus raising the question of whether a sufficient number of retraining opportunities are available. Eligibility for TAA is limited to the small group of displaced workers whose job losses are linked to imports, and the amount appropriated for EDWAA activities is only enough to help a modest portion of all displaced workers. In principle, retraining of the sort offered by these programs could prepare

1. For a comprehensive description of the ASETS proposal, including a comparison with EDWAA and TAA, see Congressional Research Service, "Job Training: The President's Proposals," CRS Report for Congress 92-741 EPW (September 1992).

displaced workers for new jobs with earnings levels comparable with their previous compensation. (Evidence about the effectiveness of these programs in doing so is also discussed below.)

The number of workers who will be displaced during the next few years may be somewhat larger than the number displaced in the late 1980s, because the economy is likely to be weaker than it was at that time and because defense-related employment is expected to shrink further. The Congressional Budget Office (CBO) forecasts a gradual recovery, with the unemployment rate falling from 7.4 percent in 1992 to 6.0 percent in 1996. The latter rate would still be one-half of one percentage point above the unemployment rate in 1990, the final year of the 10-year period analyzed in Chapters 2 and 3, but well below the 9.7 percent unemployment rate of 1982.

The downsizing of the defense sector that began in the late 1980s is expected to continue. CBO projects that the sector will lose more than 1 million jobs over the next five years, with much of this reduction occurring in 1993 and 1994.[2] Defense-related employment already fell by about 1 million jobs from 1987 to 1992. (The extent to which future reductions will require displacements, rather than being achieved through attrition, is not known.) Implementing NAFTA could add to the number of displacements, but estimated job losses in industries that would be adversely affected by the agreement are much smaller and spread out over a longer period.[3]

On the whole, however, the analysis of year-by-year levels of displacement during the 1980s, and of the consequences for the workers who were displaced, provide no evidence to support fears that the displacement problem is about to get substantially worse, although such changes are notoriously hard to predict. A key finding from that analysis is the stability in the composition of displacement during the last decade and in the extent of the losses for the workers involved.

Potential Changes

Among the options that have been discussed for helping displaced workers in general, or workers displaced specifically because of NAFTA, defense cuts, or other changes in federal policies, are modifications in the three programs described in the preceding chapter. For example, the potential duration of UI benefits could be increased for all displaced workers or for specific groups of them. Appropriations for EDWAA activities could be increased in order to serve more displaced workers. The additional funds could be earmarked for particular groups of workers (as was done for those displaced by the Clean Air Act or by reductions in defense spending). Finally, the eligibility criteria for TAA benefits could be broadened to encompass workers displaced for reasons other than imports.

Income Support

One option that the Congress might want to consider is expanding the duration of UI benefits for all or some displaced workers. In effect, the Trade Adjustment Assistance program already does this for one small group of displaced workers--those whose job losses are certified to have been linked to increased imports and who meet the other eligibility criteria. An important difference between TAA and UI, however, is that TAA generally requires participation in a training program as a condition for receiving the maximum duration of benefits. This requirement could be included in any new program as well.

2. As reported in Chapter 1, CBO's estimate of the reduction in defense-related jobs over the next five years under current law includes cuts of about 400,000 jobs in 1993 and again in 1994.

3. Estimates of NAFTA's employment effects are subject to considerable uncertainty. As reported in Chapter 1, predictions of the number of jobs lost in the industries that would be adversely affected if NAFTA is implemented range from about 100,000 jobs to more than 500,000 over the next decade.

Extending the maximum duration of UI benefits for all or some displaced workers would help cushion the losses that many of them would otherwise incur. Workers who will not be recalled generally face a more difficult time than do workers on temporary layoff. Providing them with more time to find another job before their benefits run out would recognize this fact, in the same way that the Extended Benefits program does for UI recipients seeking work in a state with relatively high unemployment. Allowing recipients who are participating in a training program to receive UI benefits for a longer period might enable more of them to undergo more extensive retraining.

Opponents of longer potential durations maintain that the availability of additional benefits would, to some degree, encourage recipients to remain unemployed longer. Moreover, the additional benefits would go to people who had already received up to 26 weeks of UI benefits and were not necessarily those most in need of assistance. For example, job seekers who had not worked long enough to qualify for UI benefits would not be helped by such an approach, regardless of their needs. An earlier CBO study of long-term UI recipients who were not working three months after their benefits ended found that about two-thirds of them were living in families with incomes above the poverty line, largely because someone else was working.[4]

One option would be to provide additional weeks of UI benefits only to people who had an especially strong attachment to their previous jobs as indicated by long job tenure. Displaced workers with relatively long tenure generally take longer to find new jobs than those with shorter tenure, as shown in Chapter 3. Moreover, some people argue that workers with long service have, in effect, "paid their dues" and deserve additional benefits. Because this group is likely to have more assets than workers with shorter tenure, however, this option would not target additional benefits toward those with the least means of support. In addition, administering such an eligibility criterion could be difficult.

Another option would be to tie eligibility for additional UI benefits to participation in some activity such as a job club or other program that helps participants find new jobs faster. There is strong evidence that such assistance is effective in shortening the length of time that participants receive UI benefits.[5] Launching a large-scale, mandatory program would be a major undertaking, however, and would add significantly to the administrative costs of the UI program.

Yet another option would be to broaden the eligibility criteria for TAA to encompass workers displaced for reasons other than imports. For example, some observers have argued that workers who are displaced because their employer closes down and reopens in another country should be covered by TAA, even though their displacement was not caused by increased imports. This action would put such workers on an even footing with those currently eligible for TAA. Identifying these workers, however, could be quite difficult. Moreover, issues regarding the fairness of providing help to some unemployed workers who exhaust their UI benefits, but not to others who face similar problems, would remain. For example, workers who lose their jobs because their employer closes down and reopens in another part of the country or goes out of business may be in equal need of assistance.

Reemployment Assistance

EDWAA and TAA already provide reemployment assistance to some displaced workers.

4. Congressional Budget Office, *Family Incomes of Unemployment Insurance Recipients and the Implications for Extending Benefits* (February 1990). This study also provides a fuller discussion of the pros and cons of extending the potential duration of UI benefits, particularly in recessions.

5. See, for example, Department of Labor, *The New Jersey Unemployment Insurance Reemployment Demonstration Project Follow-Up Report*, Unemployment Insurance Occasional Paper 91-1 (1991).

President Bush essentially proposed replacing EDWAA and TAA with a much-expanded version of EDWAA. Other advocates, including the AFL-CIO, have stressed the importance of providing income support as well as reemployment assistance and have recommended that eligibility criteria for TAA be broadened and its benefits increased.[6]

As described in Chapter 4, the two programs take quite different approaches to serving the needs of displaced workers. EDWAA emphasizes reemployment assistance, mainly through short-term training and job search assistance. Few participants receive income support. In contrast, TAA essentially extends the duration of UI benefits for eligible workers willing to participate in a training program, with about two-thirds of the outlays for this program going for income support. The debate over whether to use EDWAA or TAA as a model for developing a new displaced-worker program largely centers on the merits of providing a longer duration of income support than is normally available through the UI system.

The findings about the wage losses incurred by many displaced workers, reported in Chapter 3, provide support for ensuring that retraining assistance is available, whether through EDWAA, TAA, or an entirely new program. About one-third of the displaced workers who found new jobs had weekly earnings at least 20 percent below the earnings they had in their old jobs. Temporary income support, by itself, helps tide them over until they find new jobs, but it does nothing to rebuild their human capital. In principle, the retraining assistance provided by EDWAA or TAA could help displaced workers develop new skills or adapt their old ones, making them more valuable to their new employers.

Despite widespread support for retraining displaced workers, very little is known about the effectiveness of the current national programs in increasing the earnings of their participants. The effectiveness of the EDWAA program has not been evaluated. A study of the effects of TAA, sponsored by the Labor Department, is expected to be completed shortly. Preliminary results suggest that the training received by its participants has not increased their average earnings or their likelihood of being employed.[7] Evaluations of earlier demonstration projects for displaced workers in specific sites provide considerable basis for optimism about the effectiveness of job search assistance, but not of short-term retraining.

For example, an experiment conducted in 1984 and 1985 evaluated the costs and results of a combination of job search assistance and retraining in three sites in Texas. The principal investigator concluded that the experiment "demonstrated that a relatively inexpensive mix of job-search assistance and limited occupational skills training can be a cost-effective means of assisting *some* displaced workers."[8] But the retraining did not appear to provide any additional benefit, because, according to the author, the particular training offered was not well suited to many of the participants. As stressed by the author, its lack of success provides a lesson about the

6. The Labor Policy Advisory Committee for Trade Negotiations and Trade Policy rejected the Administration's worker adjustment proposal for helping workers displaced because of NAFTA. Instead, it called for increases in the level and duration of TAA benefits, including health insurance and a special "bridge benefit" for workers who would have been eligible to retire within four years after they were displaced. See *Report of the Labor Policy Advisory Committee for Trade on the North American Free Trade Agreement* (September 16, 1992).

7. Mathematica Policy Research, Inc., is conducting this evaluation under a contract from the Department of Labor. The results reported here are from a presentation made by the authors in January 1993 and are subject to revision.

8. Howard S. Bloom, *Back to Work: Testing Reemployment Services for Displaced Workers* (Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research, 1990), p. vii.

importance of identifying suitable training for participants.[9]

These findings are supported by a recent survey of a large number of previous evaluations in the United States and elsewhere. The author concluded that the evidence to date strongly supports programs that provide job search assistance to displaced workers, but the findings regarding retraining programs were "not as conclusive."[10] For example, four separate demonstration projects (including the Texas study) found that job search assistance increased the short-term earnings of participants and reduced their UI benefits. The effects of providing classroom training in addition to job search assistance, however, did not appear to be very large. Whether a better-designed, and possibly more extensive, training program would be more effective is a matter of conjecture.

9. Bloom, *Back to Work*, p. 165. The retraining was provided in a classroom setting and appears to have been oriented toward white-collar workers with relatively high educational attainment. They appeared to benefit, but the participants who had been in blue-collar jobs and had not completed high school appear to have incurred losses by being in the program.

10. Duane E. Leigh, *Does Training Work for Displaced Workers?* (Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research, 1990), p. 108.

Appendixes

Appendix A

Data Accuracy and Analytic Methods

The estimates about displaced workers reported in this study are based on data from supplements to the Current Population Survey (CPS). This appendix describes the supplements, some potential problems associated with the original data, and the techniques used to ameliorate those problems.

Description of the Displaced Worker Supplements

The CPS is a monthly survey of approximately 60,000 households administered by the Census Bureau for the Bureau of Labor Statistics (BLS). It is the primary source of labor force data for the United States. In addition to the basic questionnaire, the January 1984, 1986, 1988, 1990, and 1992 CPS included a series of supplemental questions that were intended to measure the extent of permanent job losses and to provide information about the characteristics of displaced workers and their experiences after layoff. Data based on these supplements have been widely cited since they reflect the only nationally representative sample of people who lose jobs permanently.[1]

Adults aged 20 and older at the time of the survey were asked whether they had "lost or left a job because of a plant closing, an employer going out of business, a layoff from which [they were] not recalled or other similar reason" during the five years preceding the survey.[2] The BLS defined people who responded yes to this question as displaced workers, with the exception of people who lost jobs because a self-operated business failed or because they had completed a seasonal job.

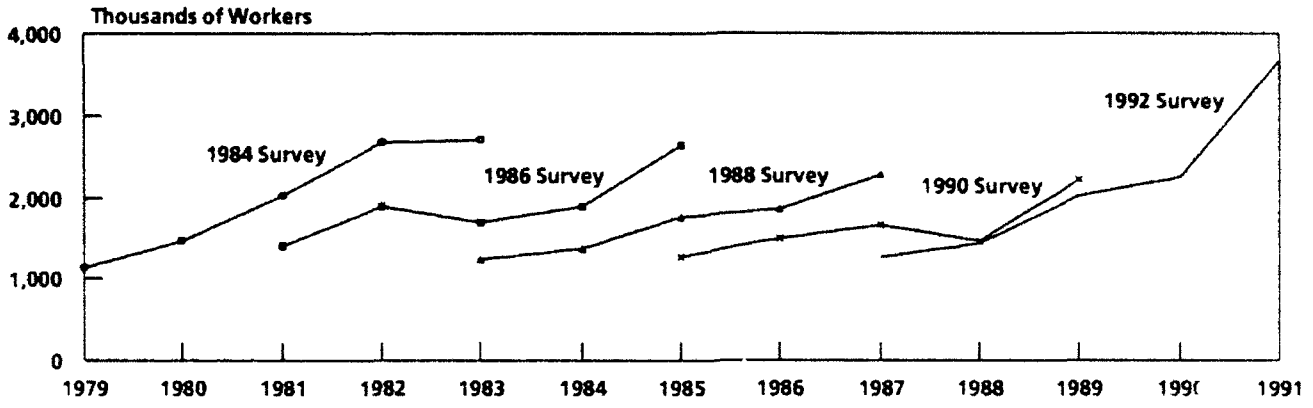
In addition to the information regularly available from the CPS--respondents' age, sex, educational attainment, and other characteristics--the displaced worker supplements also provide information about the following:

- the nature of the job losses (when they occurred and why);

1. Reports prepared by BLS analysts include Paul O. Flaim and Ellen Sehgal, *Displaced Workers of 1979-83: How Well Have They Fared?* Bulletin 2240 (Department of Labor, Bureau of Labor Statistics, July 1985); Francis W. Horvath, *The Pulse of Economic Change: Displaced Workers of 1981-85*, Bulletin 2289 (Department of Labor, Bureau of Labor Statistics, September 1987); and Diane E. Herz, "Worker Displacement in a Period of Rapid Job Expansion: 1983-87," *Monthly Labor Review* (May 1990), pp. 21-33. Other studies based on the displaced worker supplements include Michael Podgursky and Paul Swaim, "Job Displacement and Earnings Loss: Evidence from the Displaced Worker Survey," *Industrial and Labor Relations Review* (October 1987), pp. 17-29; Marie Howland and George E. Peterson, "Labor Market Conditions and the Reemployment of Displaced Workers," *Industrial and Labor Relations Review* (October 1988), pp. 109-122; and John T. Addison and Pedro Portugal, "Job Displacement, Relative Wage Changes, and Duration of Unemployment," *Journal of Labor Economics* (July 1989), pp. 281-302.

2. For this study, age is estimated at the time of job loss. People 20 and older could thus have been as young as 17 when they lost their jobs.

Figure A-1.
Number of Displaced Workers per Year, by Year of Survey, 1979-1991



SOURCE: Congressional Budget Office tabulations of data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

- characteristics of the jobs lost (including how long respondents had worked for their previous employer and their industry, occupation, earnings, and health insurance coverage);
- their experiences following job loss (how long they were jobless and their industry, occupation, and earnings on a new job, if any);[3] and
- whether they received and exhausted Unemployment Insurance (UI) benefits while they were jobless.[4]

Based on data from the January 1992 supplement, the BLS reported that 5.6 million workers with job tenures of at least three years were displaced from their jobs between January 1987 and January 1992. This compares with 4.3 million such tenured workers displaced in the five-year period ending in January 1990. About 60 percent of both groups said their plant or company had closed down or moved.

The Accuracy of the Data

Analysis of data from the five supplements indicates that the number of workers who reported being displaced in any one year depends systematically on how much time has passed since the displacement occurred: the shorter the interval, the larger the number. The magnitude of the discrepancy is very

3. Joblessness is defined in this study as the total number of weeks that displaced workers reported being without work following the loss of their jobs. Because the survey question changed, CBO adjusted the data to make estimates of the duration of joblessness more consistent. Specifically, workers displaced before 1985 were asked for the cumulative number of weeks without work (up to 99) after displacement. For workers displaced in 1985 and later years, however, weeks without work was recorded only for people who returned to work and does not reflect any weeks without work that might have occurred after losing a new job. For workers who did not return to work, CBO estimated the duration of joblessness as the average number of weeks elapsed since displacement (up to 99 to conform with the maximum for prior years).

   Because displaced workers were not asked whether they had been seeking work, joblessness is not synonymous with unemployment. In addition, limitations in the original data mean that the average duration of joblessness for workers who did not return to work may be understated. First, only joblessness up to the date of the survey is measured; workers who had not yet found work would eventually have completed jobless spells longer than they reported. Second, the maximum duration of joblessness recorded was 99 weeks, although some of the workers could have been jobless much longer.

4. The January 1986 survey asked respondents how long they had received UI benefits, but not whether they had exhausted their entitlement to benefits.

large: data from the January 1992 survey, for example, indicate that about 1.3 million workers were displaced from full-time jobs in 1987 (see Figure A-1). In contrast, data from the January 1990 survey indicate there were about 1.6 million such displaced workers in 1987, and data from the January 1988 survey indicate the number to have been about 2.3 million in 1987. Similar discrepancies exist for every year of overlap among the five surveys.

Two factors appear to explain these discrepancies: the inclusion of workers on temporary layoff (who, at the time of the survey, may not know whether their layoff is permanent) and the problem of recall bias (a situation in which survey respondents remember past events incorrectly). These factors have similar effects on estimates of the timing of displacement over the past decade, but they have different implications for the overall level of displacement and the characteristics of displaced workers.

The Inclusion of Workers on Temporary Layoff

The relatively large number of displaced workers in the latest year of each survey appears to reflect workers who lost their jobs but were subsequently rehired by their former employers.[5] The survey responses thus overstate what would normally be considered job displacement, in part because layoff without recall is one of the bases for a positive response. This effect is most likely to occur for workers whose employers continue to operate, but evidence from other sources indicates that over 10 percent of workers displaced because their employer closed, moved, or abolished their job or shift are subsequently rehired.[6]

The Problem of Recall Bias

The CPS supplements are retrospective; respondents are asked to describe events that may have occurred up to five years in the past. Although problems associated with describing events can be expected in any survey, the retrospective nature of the CPS supplements raises the possibility of bias, with errors that are nonrandom. Recall bias could arise for a number of reasons.[7]

First, and most important, some respondents may simply not recall--or think sufficiently important to mention--displacements that occurred several years earlier. This by itself would imply that the number of workers found to be displaced in a given year will be related to the elapsed time between that year and the date of the survey. In addition, workers are probably most likely to recall being displaced several years earlier only if the event was especially traumatic or costly.

Second, respondents may not accurately recall the exact date of their layoff. Although random variation is to be expected in any survey data, there is reason to believe that many respondents understated the length of time that elapsed since the displacement actually occurred. In contrast to random response errors, which do not introduce any bias, the phenomenon of "telescoping" would result in overestimates of the number of workers displaced in years close to the survey date and underestimates in earlier years.

Third, respondents who were displaced from more than one job during the five-year period may choose to report only the most recent displacement. This potential source of error is a problem only for workers with less than five years of job tenure, but it would result in underestimates of the number of workers dis-

5. For example, workers who lost jobs in December 1991 may have been recalled after the January 1992 survey was conducted.

6. Walter Corson and Mark Dynarski, *A Study of Unemployment Insurance Recipients and Exhaustees: Findings from a National Survey* (Princeton, N.J.: Mathematica Policy Research, September 1990), pp. 122-124.

7. This section is largely based on conversations with BLS analysts familiar with survey methods in general and the displaced worker supplements in particular. Also see Francis W. Horvath, "Forgotten Unemployment: Recall Bias in Retrospective Data," *Monthly Labor Review* (March 1982), pp. 40-43.

placed in the earliest years before the survey date.

A fourth possible source of recall bias that may affect how many workers appear to have been displaced is the economic circumstances at the time workers are surveyed. In particular, the number of workers who reported being displaced in 1989--and, to a lesser extent, in 1990--is much larger than would be expected on the basis of labor market conditions. The data for these two years are from the January 1992 survey, the only one of the five in which labor market conditions were worse at the time of the survey than they were during the years covered by the survey.

Recall bias, if it is not taken into account, clearly can affect estimates of changes over time in the number of displaced workers. For example, each of the CPS supplements shows displacement increasing over the five years of each survey, even though the number of workers displaced fell from one survey to the next between 1984 and 1990 (see Figure A-1). Even where trends are not a major concern, however, recall bias complicates analyzing the characteristics of displaced workers and their experiences following layoff.

To the extent that workers for whom displacement was least serious do not recall the event, the number of workers displaced is likely to be underestimated. At the same time, however, the exclusion of displaced workers who did not incur significant losses implies that the average costs of displacement among all displaced workers are likely to be overstated.

Both of these possibilities are a concern for policies that would condition benefits on permanent job loss. If the number of people who permanently lost jobs was much larger than indicated by the CPS, estimates of the costs of programs to assist them could be too low. Moreover, individuals would have a much greater incentive to identify themselves as displaced--whether or not they actually were--if benefits were contingent upon permanent job loss. Further, if the average losses associated with displacement are overstated in the CPS data, resources might be targeted in ways that were not in accord with policymakers' preferences.

Additional complications arise if recall bias is correlated with variables such as job tenure, and analysis of the distribution of job tenure among displaced workers indicates that this is the case. In each of the January surveys, the fraction of displaced workers with job tenure of three or more years was larger in the earliest year covered by the survey than in the latest year, suggesting that workers with longer job tenure are more likely to recall their layoffs. Analysis based on only one survey may therefore confuse the effects of job tenure on postlayoff experience with the effects of the business cycle.[8]

Procedures Used to Reduce Data Problems

The data analyzed in this study are based on a procedure designed to take advantage of the richness of the five CPS displaced-worker supplements and, at the same time, mitigate the problems inherent in them. This procedure involves using data for workers displaced in the second and third most recent years of each survey. Thus, the observations for 1981 and 1982 were drawn from the January 1984 survey, the observations for 1983 and 1984 from the January 1986 survey, and so forth. The resulting data set--which has more than 11,000 observations representing almost 20 million displaced workers--provides annual estimates of displacement from 1981 through 1990.

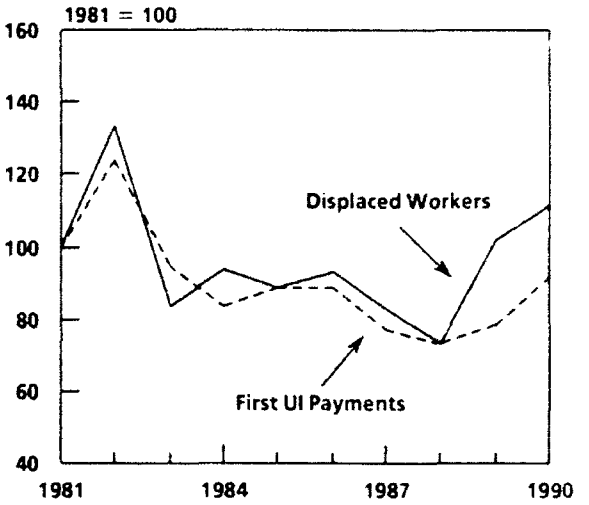
8. During most of the 1980s, the unemployment rate showed a downward trend. As a result, relatively more long-tenured workers would show up in years with higher unemployment rates. This possibility is taken into account in the multivariate analyses that control for both job tenure and the national unemployment rate.

Discarding observations from the other years available in each supplement reflects two judgments. The first, based on the evidence cited above, is that many of the workers displaced in the most recent year of each survey are not permanently laid off. Including them would therefore bias conclusions developed about workers who are truly displaced, both in terms of the workers' characteristics and in terms of their experiences after layoff. Because workers who have only recently been laid off are much less likely to have found new jobs, for example, the reemployment rate of laid-off workers is generally lower in studies that include the last year of data than it was in this analysis.[9]

The second judgment is that the effects of recall bias can be minimized by focusing on workers for whom roughly similar amounts of time have elapsed since displacement occurred, without going any farther back in time than is necessary. All of the data retained for this analysis reflect workers who reported being displaced between 13 months and 36 months before the survey date. Some variation in recall is likely to remain between even-numbered (second most recent) and odd-numbered (third most recent) years.

The validity of this procedure cannot be assessed with certainty, but the resulting year-by-year picture of displacements closely parallels movements in the number of new Unemployment Insurance recipients (see Figure A-2). Only in 1989 and 1990 do the CPS numbers diverge significantly; this may reflect the timing of the survey from which they were taken.

Figure A-2.
Displaced Workers and First Unemployment Insurance Payments, as a Percentage of 1981 Levels, 1981-1990



SOURCES: Congressional Budget Office tabulations of data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys; Department of Labor, Unemployment Insurance Service, *UI Data Summary*, various issues, and *Employment and Training Handbook*, No. 394.

NOTE: Data on first payments of Unemployment Insurance reflect benefits actually paid to recipients, not initial claims for benefits.

9. This analysis found that 73 percent of displaced workers, on average, were reemployed at the time of the survey. In contrast, the average reemployment rate reported by the BLS for the five supplements was 67 percent.

Appendix B

Year-by-Year Data for Displaced Workers

The analysis in Chapters 2 and 3 is based on data for workers who were displaced between 1981 and 1990, as described in Appendix A. This appendix presents tabulations of outcomes on a year-by-year basis that supplement that analysis.

For each year, the tables show selected characteristics of workers who were displaced in that year and how their employment status at the time of the Current Population Survey supplements varied with those characteristics. Employment status is defined as whether workers were employed, unemployed, or not in the labor force. For those who were employed, the tables present information on their new weekly earnings as a percentage of their earnings in the job they lost.

Table B-1.
Distribution of Displaced Workers by Selected Characteristics and Employment Status at Time of Survey, 1981-1990

Characteristics	Number Displaced (Thousands)	Employment Status at Time of Survey (Percent)			For Employed Workers, Earnings in New Job as a Percentage of Old Earnings				
		Employed	Unemployed	Not in Labor Force	Less Than 80	80-94	95-104	105-119	120 or More
All Workers	19,230	73	14	12	32	13	15	14	25
Job Tenure									
Less than 3 years	9,610	74	15	11	28	12	14	15	30
3-4 years	3,100	77	13	9	29	14	17	16	25
5-9 years	3,210	77	13	11	38	13	15	13	22
10 or more years	3,120	65	14	20	46	14	18	11	12
Age									
18-34	10,560	76	14	9	29	13	14	15	29
35-44	4,350	79	13	8	34	13	17	14	22
45-54	2,520	70	16	14	37	14	18	13	18
55-59	1,020	61	16	23	43	14	20	11	12
60 or more	790	32	12	56	52	14	15	8	12
Schooling Completed									
Less than 12 years	3,750	58	23	19	39	15	12	11	23
12 years	8,440	73	15	12	33	13	14	14	25
13-15 years	4,140	79	10	10	32	12	16	16	24
16 or more years	2,900	87	7	6	24	12	20	15	28
Sex									
Male	12,180	77	16	8	31	13	17	13	26
Female	7,050	68	12	20	34	13	13	16	24
Reason Displaced									
Plant closed	9,620	75	12	13	32	13	15	15	25
Slack work	6,980	70	18	12	34	13	15	14	25
Job abolished	2,630	76	13	11	31	13	16	12	27
Previous Industry									
Goods-producing	10,190	72	16	12	34	13	16	14	23
Services-producing	8,770	76	12	12	30	13	15	15	27
Previous Occupation									
White-collar	8,270	79	9	11	30	12	17	16	25
Blue-collar	10,840	69	18	13	35	14	14	13	25

SOURCE: Congressional Budget Office tabulations of data from the January 1984, 1986, 1988, 1990, and 1992 Current Population Surveys.

Table B-2.
Distribution of Displaced Workers by Selected Characteristics and Employment Status at Time of Survey, 1981

Characteristics	Number Displaced (Thousands)	Employment Status at Time of Survey (Percent)			For Employed Workers, Earnings in New Job as a Percentage of Old Earnings				
		Employed	Unemployed	Not in Labor Force	Less Than 80	80-94	95-104	105-119	120 or More
All Workers	2,000	69	16	15	36	20	9	13	21
Job Tenure									
Less than 3 years	1,070	70	15	15	31	19	11	15	24
3-4 years	360	75	16	9	34	24	8	12	23
5-9 years	290	69	18	13	47	16	8	11	17
10 or more years	270	57	18	25	54	23	4	11	8
Age									
18-34	1,230	74	15	11	35	20	10	13	22
35-44	330	72	18	10	39	21	6	15	20
45-54	250	65	18	17	29	25	10	14	22
55-59	90	46	23	31	53	9	17	14	8
60 or more	90	32	8	59	77	14	0	0	9
Schooling Completed									
Less than 12 years	450	55	24	22	50	20	6	8	16
12 years	940	71	17	13	32	20	11	16	21
13-15 years	360	71	12	17	39	17	10	10	23
16 or more years	240	86	6	9	30	24	7	15	24
Sex									
Male	1,340	74	18	9	35	20	10	13	22
Female	670	60	13	28	40	21	7	14	19
Reason Displaced									
Plant closed	830	70	13	17	36	21	9	13	21
Slack work	910	69	18	13	35	21	10	13	21
Job abolished	260	67	16	17	43	15	7	13	22
Previous Industry									
Goods-producing	1,170	69	18	13	39	19	10	13	18
Services-producing	820	69	13	18	32	22	8	14	25
Previous Occupation									
White-collar	700	75	11	14	34	22	9	12	24
Blue-collar	1,300	66	18	16	38	19	10	14	19

SOURCE: Congressional Budget Office tabulations of data from the January 1984 Current Population Survey.

Table B-3.
Distribution of Displaced Workers by Selected Characteristics and Employment Status at Time of Survey, 1982

Characteristics	Number Displaced (Thousands)	Employment Status at Time of Survey (Percent)			For Employed Workers, Earnings in New Job as a Percentage of Old Earnings				
		Employed	Unemployed	Not in Labor Force	Less Than 80	80-94	95-104	105-119	120 or More
All Workers	2,680	65	23	12	31	13	17	13	26
Job Tenure									
Less than 3 years	1,380	66	23	11	24	12	14	15	34
3-4 years	420	71	18	10	38	12	23	9	18
5-9 years	460	64	24	12	35	17	14	12	21
10 or more years	380	53	28	19	44	14	23	10	9
Age									
18-34	1,620	68	22	10	30	12	17	13	28
35-44	490	71	19	10	33	15	19	12	22
45-54	300	62	26	12	32	15	15	17	21
55-59	160	46	38	15	34	15	14	18	18
60 or more	110	26	28	46	33	37	21	0	10
Schooling Completed									
Less than 12 years	590	49	35	16	39	16	14	12	19
12 years	1,250	64	22	13	31	14	18	11	27
13-15 years	500	75	17	8	30	11	18	16	25
16 or more years	340	80	13	7	24	12	15	17	32
Sex									
Male	1,800	69	25	7	32	13	18	13	24
Female	880	57	20	23	27	15	15	14	29
Reason Displaced									
Plant closed	1,060	65	21	14	31	15	15	13	25
Slack work	1,320	62	26	12	33	13	17	13	24
Job abolished	300	75	18	8	23	12	20	13	31
Previous Industry									
Goods-producing	1,620	62	26	12	34	15	18	12	21
Services-producing	1,050	69	19	12	26	11	15	15	32
Previous Occupation									
White-collar	980	71	15	14	24	14	17	18	27
Blue-collar	1,700	61	28	11	35	13	16	10	25

SOURCE: Congressional Budget Office tabulations of data from the January 1984 Current Population Survey.

Table B-4.
Distribution of Displaced Workers by Selected Characteristics and Employment Status at Time of Survey, 1983

Characteristics	Number Displaced (Thousands)	Employment Status at Time of Survey (Percent)			For Employed Workers, Earnings in New Job as a Percentage of Old Earnings				
		Employed	Unemployed	Not in Labor Force	Less Than 80	80-94	95-104	105-119	120 or More
All Workers	1,680	76	10	14	33	10	14	16	27
Job Tenure									
Less than 3 years	770	79	8	12	26	11	15	15	33
3-4 years	320	78	12	10	33	7	15	18	27
5-9 years	290	76	13	11	40	8	11	15	26
10 or more years	280	63	10	26	51	11	16	13	8
Age									
18-34	970	79	9	12	29	9	13	15	33
35-44	340	83	11	6	35	12	15	18	19
45-54	210	70	15	15	37	12	21	13	18
55-59	100	57	16	37	55	9	11	20	6
60 or more	60	35	6	59	88	0	12	0	0
Schooling Completed									
Less than 12 years	320	61	16	22	46	11	17	10	16
12 years	770	77	10	14	30	13	12	18	27
13-15 years	340	82	9	9	37	6	16	15	27
16 or more years	250	84	5	11	27	5	17	15	37
Sex									
Male	1,040	81	11	8	32	9	16	14	28
Female	630	67	9	24	35	11	12	18	24
Reason Displaced									
Plant closed	890	76	10	14	33	11	15	19	22
Slack work	560	76	12	12	38	8	15	12	28
Job abolished	220	74	8	18	23	9	12	12	44
Previous Industry									
Goods-producing	1,010	76	10	14	36	9	15	15	25
Services-producing	660	76	11	14	29	12	13	17	30
Previous Occupation									
White-collar	650	79	7	14	29	9	15	16	31
Blue-collar	1,030	74	12	14	36	10	14	15	24

SOURCE: Congressional Budget Office tabulations of data from the January 1986 Current Population Survey.

Table B-5.
Distribution of Displaced Workers by Selected Characteristics and Employment Status at Time of Survey, 1984

Characteristics	Number Displaced (Thousands)	Employment Status at Time of Survey (Percent)			For Employed Workers, Earnings in New Job as a Percentage of Old Earnings				
		Employed	Unemployed	Not in Labor Force	Less Than 80	80-94	95-104	105-119	120 or More
All Workers	1,870	72	15	12	30	13	17	13	27
Job Tenure									
Less than 3 years	930	74	16	10	29	13	16	10	32
3-4 years	280	74	14	12	24	13	22	17	24
5-9 years	330	76	13	11	29	15	20	12	23
10 or more years	310	64	17	20	40	11	12	17	19
Age									
18-34	1,060	75	16	9	28	14	17	13	28
35-44	400	79	14	8	26	10	16	15	33
45-54	230	68	14	18	40	12	15	10	23
55-59	100	61	15	24	42	18	24	9	6
60 or more	90	33	13	53	46	13	9	10	21
Schooling Completed									
Less than 12 years	410	56	23	21	34	15	14	10	27
12 years	860	73	15	11	34	13	15	14	24
13-15 years	350	78	10	12	23	10	23	13	32
16 or more years	250	89	9	2	21	14	20	12	33
Sex									
Male	1,210	75	17	8	27	14	18	12	28
Female	670	67	12	21	35	11	14	14	25
Reason Displaced									
Plant closed	950	73	15	12	31	15	17	12	25
Slack work	660	70	17	13	28	10	17	15	30
Job abolished	260	75	11	14	30	13	18	11	28
Previous Industry									
Goods-producing	1,070	70	18	12	30	13	18	12	26
Services-producing	780	76	12	12	29	14	15	14	28
Previous Occupation									
White-collar	740	78	9	12	26	11	18	15	30
Blue-collar	1,130	68	19	13	33	14	16	11	25

SOURCE: Congressional Budget Office tabulations of data from the January 1986 Current Population Survey.

Table B-6.
Distribution of Displaced Workers by Selected Characteristics and Employment Status at Time of Survey, 1985

Characteristics	Number Displaced (Thousands)	Employment Status at Time of Survey (Percent)			For Employed Workers, Earnings in New Job as a Percentage of Old Earnings				
		Employed	Unemployed	Not in Labor Force	Less than 80	80-94	95-104	105-119	120 or More
All Workers	1,770	79	9	12	34	11	17	13	25
Job Tenure									
Less than 3 years	840	79	11	10	28	10	15	15	32
3-4 years	270	82	9	8	37	11	19	11	23
5-9 years	350	82	7	11	36	13	17	13	22
10 or more years	290	74	5	21	47	14	21	9	9
Age									
18-34	940	82	10	8	29	10	15	13	33
35-44	430	86	8	6	36	12	19	15	18
45-54	250	73	9	18	41	19	21	9	11
55-59	90	77	3	20	64	12	10	7	7
60 or more	70	39	4	58	32	4	26	8	30
Schooling Completed									
Less than 12 years	340	64	18	17	40	17	10	8	24
12 years	790	80	7	12	39	8	15	13	24
13-15 years	360	83	7	10	27	13	16	13	31
16 or more years	280	92	3	5	25	12	27	15	21
Sex									
Male	1,150	82	9	9	32	12	18	14	24
Female	620	74	9	17	38	10	15	11	26
Reason Displaced									
Plant closed	1,030	80	8	12	35	12	17	12	25
Slack work	480	76	12	12	33	9	15	16	26
Job abolished	260	84	7	9	34	14	19	11	23
Previous Industry									
Goods-producing	900	79	9	12	32	13	19	13	23
Services-producing	860	80	9	11	36	10	15	13	26
Previous Occupation									
White-collar	820	84	7	10	34	10	19	13	23
Blue-collar	950	76	11	13	34	12	15	13	26

SOURCE: Congressional Budget Office tabulations of data from the January 1988 Current Population Survey.

Table B-7.
Distribution of Displaced Workers by Selected Characteristics and Employment Status at Time of Survey, 1986

Characteristics	Number Displaced (Thousands)	Employment Status at Time of Survey (Percent)			For Employed Workers, Earnings in New Job as a Percentage of Old Earnings				
		Employed	Unemployed	Not in Labor Force	Less Than 80	80-94	95-104	105-119	120 or More
All Workers	1,860	76	14	11	36	13	14	13	24
Job Tenure									
Less than 3 years	890	76	16	8	30	13	13	14	30
3-4 years	260	78	15	7	31	11	9	23	26
5-9 years	350	80	11	9	45	15	11	11	18
10 or more years	350	70	11	19	46	13	22	4	14
Age									
18-34	1,010	78	14	7	32	13	10	15	29
35-44	460	80	13	7	38	13	19	14	16
45-54	220	71	12	17	45	11	14	8	22
55-59	80	71	13	16	4	17	19	0	23
60 or more	80	33	17	50	56	15	19	5	5
Schooling Completed									
Less than 12 years	350	67	21	12	44	17	8	8	22
12 years	840	73	16	11	37	13	13	13	24
13-15 years	410	83	7	10	32	13	16	16	23
16 or more years	260	84	8	7	31	8	19	15	27
Sex									
Male	1,190	79	15	6	36	12	14	11	27
Female	670	70	11	19	37	14	12	18	18
Reason Displaced									
Plant closed	960	77	11	11	34	13	14	14	24
Slack work	660	72	18	10	39	14	13	11	23
Job abolished	250	78	11	11	35	12	11	14	28
Previous Industry									
Goods-producing	950	74	16	10	38	12	14	12	24
Services-producing	910	78	11	11	34	14	13	15	24
Previous Occupation									
White-collar	870	80	9	11	33	11	16	17	23
Blue-collar	990	72	18	10	39	15	12	9	25

SOURCE: Congressional Budget Office tabulations of data from the January 1988 Current Population Survey.

Table B-8.
Distribution of Displaced Workers by Selected Characteristics and Employment Status at Time of Survey, 1987

Characteristics	Number Displaced (Thousands)	Employment Status at Time of Survey (Percent)			For Employed Workers, Earnings in New Job as a Percentage of Old Earnings				
		Employed	Unemployed	Not in Labor Force	Less Than 80	80-94	95-104	105-119	120 or More
All Workers	1,650	83	7	10	28	11	14	15	32
Job Tenure									
Less than 3 years	860	83	7	9	26	8	11	15	40
3-4 years	280	88	6	7	23	11	15	17	34
5-9 years	240	87	5	8	33	16	14	14	24
10 or more years	250	74	9	17	41	15	23	11	10
Age									
18-34	920	87	7	7	26	9	11	16	37
35-44	400	86	7	7	28	15	13	13	31
45-54	180	83	8	9	36	13	19	11	22
55-59	80	73	6	21	34	9	31	18	8
60 or more	60	32	11	57	62	0	17	10	11
Schooling Completed									
Less than 12 years	270	70	11	20	31	11	14	17	27
12 years	740	81	9	10	31	9	12	13	35
13-15 years	370	91	4	5	30	16	10	17	27
16 or more years	270	92	4	5	17	9	24	12	38
Sex									
Male	1,010	85	8	7	26	12	15	14	34
Female	640	81	5	14	33	10	11	15	31
Reason Displaced									
Plant closed	950	83	7	10	26	13	14	12	35
Slack work	470	84	6	9	30	7	13	18	33
Job abolished	230	83	8	9	34	10	16	19	21
Previous Industry									
Goods-producing	760	82	8	9	29	12	13	16	30
Services-producing	840	86	5	9	28	11	14	13	34
Previous Occupation									
White-collar	780	88	3	9	24	12	17	16	32
Blue-collar	830	80	10	10	33	11	11	14	32

SOURCE: Congressional Budget Office tabulations of data from the January 1990 Current Population Survey.

Table B-9.
Distribution of Displaced Workers by Selected Characteristics and Employment Status at Time of Survey, 1988

Characteristics	Number Displaced (Thousands)	Employment Status at Time of Survey (Percent)			For Employed Workers, Earnings in New Job as a Percentage of Old Earnings				
		Employed	Unemployed	Not in Labor Force	Less Than 80	80-94	95-104	105-119	120 or More
All Workers	1,460	78	10	13	29	14	17	14	26
Job Tenure									
Less than 3 years	710	80	10	10	25	13	17	15	30
3-4 years	220	84	7	9	24	17	16	15	28
5-9 years	240	81	7	12	39	9	14	11	27
10 or more years	260	64	13	23	36	23	19	13	9
Age									
18-34	720	81	10	9	26	16	14	16	28
35-44	380	82	10	8	30	12	17	12	28
45-54	220	79	11	9	36	13	27	11	14
55-59	70	66	6	28	19	19	30	9	23
60 or more	70	30	6	63	41	22	0	20	17
Schooling Completed									
Less than 12 years	270	66	15	19	26	20	11	16	27
12 years	620	75	11	14	32	15	15	14	24
13-15 years	310	85	5	10	25	12	19	16	29
16 or more years	250	88	6	6	29	12	23	10	26
Sex									
Male	860	82	9	9	27	13	18	15	27
Female	590	72	10	18	32	16	15	13	24
Reason Displaced									
Plant closed	840	78	10	12	30	12	19	14	25
Slack work	410	77	9	13	23	19	13	16	30
Job abolished	210	80	7	13	34	16	17	10	24
Previous Industry									
Goods-producing	670	76	12	12	29	16	17	17	21
Services-producing	720	81	8	11	28	13	17	11	31
Previous Occupation									
White-collar	720	82	7	11	31	14	18	13	25
Blue-collar	690	74	12	13	26	15	16	15	28

SOURCE: Congressional Budget Office tabulations of data from the January 1990 Current Population Survey.

Table B-10.
Distribution of Displaced Workers by Selected Characteristics and Employment Status at Time of Survey, 1989

Characteristics	Number Displaced (Thousands)	Employment Status at Time of Survey (Percent)			For Employed Workers, Earnings in New Job as a Percentage of Old Earnings				
		Employed	Unemployed	Not in Labor Force	Less Than 80	80-94	95-104	105-119	120 or More
All Workers	2,030	77	11	12	31	12	15	16	26
Job Tenure									
Less than 3 years	1,020	75	13	12	29	12	13	19	27
3-4 years	340	82	11	7	23	18	22	10	27
5-9 years	290	83	6	11	31	8	16	16	30
10 or more years	370	71	12	17	49	8	11	12	19
Age									
18-34	1,010	79	11	9	27	10	13	18	32
35-44	520	84	10	7	34	14	17	13	23
45-54	310	71	15	14	41	14	16	15	15
55-59	120	67	15	18	36	16	19	6	24
60 or more	70	30	5	65	55	10	12	24	0
Schooling Completed									
Less than 12 years	370	61	18	22	40	9	8	10	32
12 years	770	76	12	12	32	12	15	17	25
13-15 years	500	81	8	10	35	12	14	17	23
16 or more years	390	88	7	5	21	14	22	15	29
Sex									
Male	1,220	78	14	9	31	12	18	14	25
Female	810	75	7	17	32	12	10	19	27
Reason Displaced									
Plant closed	1,100	78	10	13	30	12	13	19	27
Slack work	650	74	13	13	36	13	17	12	22
Job abolished	280	79	13	7	27	11	19	13	30
Previous Industry									
Goods-producing	1,030	76	13	11	33	13	14	13	27
Services-producing	970	79	9	13	30	11	16	[illegible]	25
Previous Occupation									
White-collar	970	84	6	10	29	10	18	18	25
Blue-collar	1,050	70	16	14	34	13	12	13	28

SOURCE: Congressional Budget Office tabulations of data from the January 1992 Current Population Survey.

Table B-11.
Distribution of Displaced Workers by Selected Characteristics and Employment Status at Time of Survey, 1990

Characteristics	Number Displaced (Thousands)	Employment Status at Time of Survey (Percent)			For Employed Workers, Earnings in New Job as a Percentage of Old Earnings				
		Employed	Unemployed	Not in Labor Force	Less Than 80	80-94	95-104	105-119	120 or More
All Workers	2,230	67	20	13	33	12	19	17	18
Job Tenure									
Less than 3 years	1,140	66	22	12	29	13	18	17	23
3-4 years	360	68	20	12	23	15	16	28	19
5-9 years	370	75	15	10	41	11	20	15	12
10 or more years	350	66	17	17	49	10	25	10	7
Age									
18-34	1,090	69	20	11	29	12	17	19	23
35-44	600	73	19	9	36	12	20	16	15
45-54	350	64	26	11	35	11	23	18	13
55-59	120	56	16	28	45	15	28	11	1
60 or more	70	34	14	53	42	17	28	6	7
Schooling Completed									
Less than 12 years	370	48	31	21	29	11	23	13	24
12 years	880	66	22	12	34	13	17	17	20
13-15 years	630	71	17	12	40	13	17	18	11
16 or more years	360	84	10	5	23	11	24	20	21
Sex									
Male	1,360	69	22	8	31	13	22	16	17
Female	880	64	17	19	36	12	15	19	18
Reason Displaced									
Plant closed	1,020	72	16	12	30	11	21	21	18
Slack work	870	60	25	15	37	12	18	17	16
Job abolished	350	71	20	9	34	16	18	10	23
Previous Industry									
Goods-producing	1,020	63	25	12	36	10	21	16	16
Services-producing	1,160	71	16	13	31	14	18	18	20
Previous Occupation									
White-collar	1,030	75	16	9	32	13	19	19	17
Blue-collar	1,180	61	24	15	34	12	19	16	18

SOURCE: Congressional Budget Office tabulations of data from the January 1992 Current Population Survey.

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